gtacaaatat cctagagtca taacgaatgt tcttcgtgga tgccagtgaa	atgggagttg gagagatatt agcagtcaat gaagtggaca ataggagaaa gacaatgcag	ctccttcctc taccagtttc ctagctcttc ctcccattca ctttctatat	caattccact agttatggaa catgtggatt gcctttgggc tgggtgtgtg	ctcagcatct aaatcaaaat tatgttttcc attgcctacc cagacggttg	ctccgtgtct ccaaaataag tgggcaatct tggatgattt caattatagg	300 360 420 480 540 600
accaatcttt	ggtttcctgt gtcattttta	taggctcatt	atgtgccaaa	ctatatgttg	acattggctt	660 713

<210> 232

<211> 1067 <212> DNA

<213> Homo sapiens

<400> 232

cagcetteca aggtagggca caccaaggce taaggaatca gaaagggcee gagggtggge tgtgtcctgg ctttcaggcc ctggggcgac caccagcctc tgctcactct gaggctccag 120 ccaggiogec aagectcagg accgtgggtg gggcccaagg acactctgga cccccgttcc 180 atteatgaga ggccctcagc acgccacgtg tctgctgtga cagcccgcag ggagggtgga 240 agecttetgt aaattecaca tgtgggeega gggeatgaeg teettgatga aggeegeget 300 ggacetcace taccecatca egtecatgtt eteeggagee ggetteaaca geageatett 360 cagogtotto aaggaccago agatogagga cotgtggatt cottatttog coatcaccac 420 cgacatcaca gcctcggcca tgcgggtcca caccgacggc tccctgtggc ggtacgtgcg 480 tgccagcatg tccctgtccg gttacatgcc ccctctctgt gacccgaagg acggacacct 540 getgatggac gggggetaca teaacaacet cecageggat gtggeceggt ceatgggge 600 aaaagtggtg atcgccattg acgtgggcag ccgagatgag acggacctca ccaactatgg 660 ggatgcgctg tctgggtggt ggctgctgtg gaaacgctgg aaccccttgg ccacgaaagt 720 caaggtgttg aacatggcag agattcagac gegectggee tacgtgtgtt gegtgeggca 780 gctggaggtg gtgaagagca gtgactactg cgagtacctg cgcccccca tcgacagcta 840 900 cagcaccetg gactteggea agtteaacga gatetgegaa gtgggetace ageacgggeg caeggtgttt gacatetggg geogeagegg egtgetggag aagatgetee gegaceagea 960 ggggccgagc aagaagcccg cgagtgcggt cctcacctgt cccaacgcct ccttcacqqa 1020 ccttgccgaa attgtgtctc gcattgagcc cgccaagccc gccatgg 1067

<210> 233

<211> 704 <212> DNA

<213> Homo sapiens

<400> 233

tttcgtgtga gggagagccg agggaaccag cgcggtgcct agcggaactc cagggctgga 60 atcccgagac acaagtgcat ctgctagctg ttagcacttg gcagacggag ttctcctcta 120 180 gggtagttct aactttgggt aataatgttt gtcagctacc tgatattaac attgctccac gttcaaacag cagtgttagc aagacctggg ggagagagca ttggctgtga tgactactta 240 ggctccgaca aagtcgtgga caaatgtggg gtqtqtggag gagacaacac gggctqtcag 300 gttgtgtcgg gcgtgtttaa gcatgccctc accagcctgg gctaccaccg cgtcgtggag 360 attcccgagg gagccacgaa aatcaacatc acggagatgt acaagagcaa caactatttg 420 geeetgagaa gtegttetgg acqetecate ateaatggga actgggeaat tgateqacea 480

actgccggag agtttggatg	agggeggagg agteetttt tttetggaet ataagcaaca	ggcggaaggt gttctttgga	cccaccaacg ttttgaatct	agatettgga tgteaettet	tgtctacgtg	540 600 660 704
--------------------------	---	--------------------------	--------------------------	--------------------------	------------	--------------------------

<21,0> 234

<211> 420 <212> DNA

<213> Homo sapiens

<400> 234

atttcaggag ggaccagaag ogcaggceg ctcaggagga attacaactt catcgcege 5tgsgtgaga aggaccag ateggggte catcgutget cacgtycage tgtggggeag gaaccagcag 120 tggattgagg tggtgctca gaatggggc ogttatgaag ctgttgtcaa ggatattgac 180 cttaaattg atcttgggt ggtcatagat catcagat gaatcaattg ctgaacttc tgtactgatg ctgggatgag cacccatt 300 tctctgcaga acacagctac tgcaggatt gtcagcaca acacgcgagg gggcaaagaa ctctgggatga atatggatcac gtcagattg atgccacaat taactatggg 420 ctggggatga aggattcag atatggatcac gtcagattg atgccacaatt taactatggg 420

<210> 235

<211> 1057

<212> DNA

<213> Homo sapiens

... ...

cocacgogto cgagaactca aagaaattot ggataggaaa gggcatttot cagagaatga 6.0 gacaaggigg alcattcaaa gictegcate agetalagca taletteaca ataatgatat 120 tgtacataga gatctgaaac tggaaaatat aatggttaaa agcagtctta ttgatgataa 180 caatgaaata aacttaaaca taaaggtgac tgattttggc ttageggtga agaagcaaag 240 taggagtgaa gecatgetge aggecacatg tgggacteet atetatatgg eccetgaagt 300 tatcagtgcc cacgactata gccagcagtg tgacatttgg agcataggcg tcgtaatgta 360 catgitatta cgtggagaac cacccttttt ggcaagctca gaagagaagc titttgagtt 420 aataagaaaa ggagaactac attttgaaaa tgcagtctgg aattccataa qtqactgtgc 480 taaaagtgtt ttgaaacaac ttatgaaagt agatcctgct cacagaatca cagctaagga 540 actactagat aaccagtggt taacaggcaa taaactttet teggtgagac caaccaatgt 600 attagagatg atgaaqqaat qqaaaaataa cccaqaaagt qttqaqqaaa acacaacaga 660 agagaagaat aagccgtcca ctgaagaaaa gttgaaaagt taccaaccct ggggaaatgt 720 ccctgagacc aattacactt cagatgaaga ggaggaaaaa caggtaggaa gaatcattgc 780 tgcatttctc ccaagtgtaa aataccetca ccacacetgg aacatttttt tgcaaatetg 840 tetttttgtt gttagtttgt aacaaaggec gagegttata tagcaagtaa agttetttet 900 geettataag getageatga titagegagg togeetacat gittattita aggitggtga 960 ttatgtaggg caggtgtctg caaacttttt ctgtaaggga acaaacagta aatattttag 1020 getttgtggg cectagtagt etttgtcaca actacte 1057

<210>	236		
<211>	467		
<212>	DNA		
<213>	Homo sapiens		
<400>	236		
	gtgtcagtga tgtgtctctc tctga	.t	ctqttcttta 60
	ctgtcaaaac ttccaaggca tatct		
	gtggattete atcaccagtt atgga		
	gtagtaaacc tgcagctgat ataag		
	. aatatttaaa agaagaggat gcaaa		
	teegagtgga eeggagtgat gatgg		
cacgaatccc	tcaatgccac ccctcaggta gccat	gcagg tgctagaaat	gcactataca 420
ccatcagtta	agattatacc atcgactcct tttcc	acaag aaggacg	467
<210>	237		
<211>	416		
<212>			
	Homo sapiens		
7225	nomo bapieno		
<220>			
	misc feature		
	(1)(416)		
<223>	n = a,t,c or g		
<400>	237		
ggtacaacca	gaaagtggat ctcttcagcc tggga	attat cttctttgag	atgtcctate 60
accccatggt	cacggettea gaaaggatet ttgtt	ctcaa ccaactcaga	gateceactt 120
cgcctaagtt	tecagaagae tttgacgatg gagag	catgo aaagcagaaa	tcaqtcatct 180
	gaaccacgat ccagcaaaac ggccc		
agetgetgee	cccacccag atggaggagt cagag	ctoca toaagtocto	caccacacge 300
tgaccaacgt	ggatggaaag geetacegea ceatt	gatag gcccagatct	ttteggeage 360
gcateteece	tgccatcgnt ttacacctat gacca	dedag atatteased	gcaact 416
5040000000	ogoodoogne ceacacetat gacca	yoyuc atattyaagg	guadu 416
<210>			
<211>	739		

<400> 238

<212> DNA <213> Homo sapiens

ggaccaggac tacaagtacg acagtacete agacgacage aactteetea accecccag 60 gggtygggac catacagcee caggccaccg gacttettgaa accaaagate agccagaata 120 tgattecaca gatggegagg gtgactggag tetetgeageg teacetgegg 180 gaacggcaac cagaaacgg

gacctgtgac	cgtccaaact	gcccaggaat	tgaagacact	tttaggacag	ctgccaccga	300
agtgagtctg	cttgcgggaa	gcgaggagtt	taatgccacc	aaactgtttg	aagttgacac	360
agacagctgt	gagcgctgga	tgagctgcaa	aagcgagttc	ttaaagaagt	acatgcacaa	420
ggtgatgaat	gacctgccca	gctgcccctg	ctcctacccc	actgaggtgg	cctacagcac	480
ggccgacatc	ttcgaccgca	tcaagcgcaa	ggacttccgc	tggaaggacg	ccagcgggcc	540
caaggagaag	ctggagatct	acaagcccac	tgcccggtac	tgcatccgct	ccatgctgtc	600
cctggagagc	accacgctgg	cggcacagca	ctgctgctac	ggcgacaaca	tgcagctcat	660
caccaggggc	aagggggcgg	gcacgcccaa	cctcatcagc	accgagttct	ccgcggagct	720
ccactacaag	gtggacgtc					739

<210> 239

<211> 611 <212> DNA

<213> Homo sapiens

<400> 239

ggaatcggaa gaaaatggag agagtgcaat ggacaqcaca gtgqccaaaq aaggcactaa tgtaccatta gttgctgctg gtccttgtqa tqatqaaqqc attgtqacta qcacaqqcqc 120 tgggcatgct tcaacttgta cagggttagg agaagaaagt gaaggggtct tgatttgtga 240 aagtgcagaa ggggacagtc agattggtac tgtggtagag catgtggaag ctgaggctgg 300 agctgccatc atgaatgcaa atgaaaataa tgttgacagc atgagtggca cagagaaagg 360 aagtaaagac acagatatot gotocagtgo aaaagggatt gtagaaagca gtgtgaccaq 420 tgcagtctca ggaaaggatg aagtgacacc agttccagga ggttgtgagg gtcctatqac 480 tagtgctgca tctgatcaaa gtgacagtca gctcgaaaaa gttgaagata ccactatttc 540 cactggcctg gtcgggggta gttacgatgt tcttgtatct ggtgaagtcc cagaatgtga 600 agttgctcac a 611

<210> 240

<211> 1090

<212> DNA

<213> Homo sapiens

<400> 240

tttttttttt ttaagettga aataaaattt ttattttgtt ttgaattaaa tcaaccatga 60 ttattcacag tgcagtaagt gtgtatcatc tgtttgatat tttcatatta cagttttgat 120 agtgetette agtetgegaa atettetttg ggtggaaatg atgaactgte agetaettte 180 ttagaaatga aaggacattt ctatatgtat gctggttctc tgctcttgaa gatgggtcag 240 catggtaata atgttcaatg gcgagctctt tctgagctgg ctgcgttgtg ctatctcata 300 gcatttcagg taagtcttcc acttggagca attgacattt cacggagtct tgatgtgttt 360 taaatgaagg tgtgctctgg tatgtaatga caatatgtga acaaacctgt ggaattaaag 420 ttaaaaatgaa atagtcaatt tgatacagtg gaaaataact aagcatacac aatactggtg 480 . aggetggtga aacagggatg ttgaatgcac tettgtegaa ageetgcatt gecatgattt 540 gtttgtagac aaatttgaag agtttgatet ttttactetg ccatttttgg gaacatgata 600 aagatgtaat ctcgtattat gggtaaagct tgattcaaaa agatgtgtta cttggacaaa 660 atcctaataa gtagacgtag ggcaatggct ttatagccta tgatagaaga atatgattgc 720 aatttaacat gttaattgaa acacatgtat ataacattta tgactgtatt gtgtatatgt 780 aacagtatat ctattaatct ttgaaaacat aaaacctttt cttatttttt attttttat 840

WO 01/53455					PCT/US00	/35017
ctcactgcag ctgggactac	gaccaagtet cetecacete aggeceatge atgttggeca	ctgggttcga taccaagccc	gtgattctcc agctaatttt	tgcctcagcc ttgtatttt	tcccgagtag aatagagatg	900 960 1020 1080 1090
<210> <211> <212> <213>	680	ns				
gaacagaaag atcetactec ettectggaa gtteetette etggetgtte caaaagggaa tagetaceca eegggageet tgatgecaca etgetttggg	241 toccaggaaa tacaggtcoc gctaccattg cacttcaaca agcttcccca ctgggctgca cagttgtcag ggaaatggtga ggctttgtcc gtctctgtct aasaaagaatg aaggacttcc	accatgacca geggeetgac accagtatec tateceteat attttaaaga agaagaggat etggattttt etggetggga teettggett	gatgatotgo caccatcato agcotcagag catgotggtg gacotgoto coaagaagaa cttcatoctg ttotttottt	aagtgeetet ggcaceteea gtggtgaact gtcagetggt etgagcaaga atgaacagtac gaaaggaaga etcattcoag	ccctgagcat ccagcctcat ttggcacctg tctggatgca agaagaagac tgggagacat tgtggtttac gctaccgtac cgaagaagcc	600 120 180 240 360 420 480 540 600 680
<210> <211> <212> <213>	491	as				
agttggtcca	242 aaggggacaa gaaggatgcc ccqtggccct	tecattectg	cttctcacct	gcctcttcat	cacaggcacc	60 120 180

ctigaaaga aagggacaa aggaacaca gtattaagag gattttcag tgtttctggc 60
cctigaaagag aagggacaa aggaacaca gtattaagag gattttcag tgtttctggc 21
agttggtcaa gaaggatgcc tcaattcctg cttctcaact gcctottcat caaggcacc 120
ccgtgtcac ccgtggccct agatccttgt tctgcttaca tcagcctgaa tgagccctgg 180
aggaacactg accaccatt cacggcatg gcggagatg caatgctac cttctgata aaccactgtg 240
aatggggagt ggtaccactt cacggcatg gcggagatg caatgcctac cttctgaata 360
ggcgacgca ttgtgcaacg ccagcactg tgtctgctca atgggaactg cccctagaa 360
ggcgacgcas ttgtgcaacg ccaggcttgt gccagcttaa atgggaactg ctgtctctgg 420
aacaccacagg tggaagtaa ggcttgccct ggaggctact atgtgtatcg tctgaccaaa 490
cccagcgcttt g

<210> 243 <211> 983 <212> DNA

60

120

180

240

300

360

420

480

780

840

900

960

983

120

180

240

300

360 420

480

526

<213> Homo sapiens

<400> 243 tgeggegga ccatgagega catecgecae tegetgetge geegegatge getgagegee gccaaggagg tottgtacca cotqqacato tacttcagca gccagctqca gagcqcqccq ctgcccateg tggacaaggg ccccgtggag ctgctggagg agttcgtgtt ccaggtgccc aaqqaqcqca qcqcqcagcc caaqaqactg aattcccttc aggagcttca acttcttgaa atcatqtqca attatttcca qqaqcaaacc aaggactctg ttcggcagat tatttttca tecettttea geoeteaagg gaacaaagee gatgacagee ggatgagett gttgggaaaa etggteteea tggeggtgge tgtgtgtega ateceggtgt tggagtgtge tgeeteetgg cttcagcgga cgcccqtggt ttactgtgtg aggttagcca aggcccttgt agatgactac tgetgtttgg tgeegggate catteagacg etgaagcaga tatteagtge cagecegaga thetgetgee agtheateac etcepttace gegetetate acetgteate agatgacete attecaceta tggacttget tgaaatgatt gteacetgga tttttgagga eccaaggttg atteteatea ettttttaaa taeteegatt geggeeaate tgeeaatagg attettagag cteaccecge teqttqqatt gatecgetgq tgegtqaagg caccectgge ttataaaagg aaaaaqaaqc cccccttatc caatqqccat qtcaqcaaca aqqtcacaaa qgacccgggc gtggggatgg acagagacte ceaectettg tacteaaaac tecaecteag egteetgcaa gtgctcatga cgctgcagct gcacctgacc gagaagaatc tgtatgggcc gcctggggct gatectette gaccacatgg tee

<210> 244 <211> 526 <212> DNA <213> Homo sapiens <220> <221> misc feature <222> (1)...(526) <223> n = a.t.c or q

<400> 244

oggetegtee nnatttgaac coettetttg atoggeetge agtacoggge oggaattace cggtcgagec acgcgttcgc tcacgcgtcc ggccaaccag aagggttgcg acggggaccg cetgtactac gacggetgtg ceatgatege catgaacgga agegtetttg ctcaaggate ccagttttct ctggatgacg tggaagtcct gacggccacg ctggatctgg aggacgtccg gagctacagg geggagattt catetegaaa cetggeggtg agtgetecag tagacacetg tgtgggatgc tcatcaaaga cgtggaaagt ggccccattc gtgcgggcct ggtggaggcc gtgagggtgc agtgcctgaa aagtctgaca gggaagttcc ggacttcccg agcgtggaaa ggggetggtg ccgcagacag aacctgcttc catctgttcc ccgtcatcct ctgcttgggc caggecetga getggggtga getggggaea ggeaggeagg tgtatt

<210> 245 <211> 418 <212> DNA <213> Homo sapiens

cactectatt gtececatgg cccccaggtc ccctgtccgg tgtccaggtg	245 coccaggtag cactectact taccectgag ctggtgaacg ggtgtctaca acctcagcac cagctgacct	tgccactcct ccatgggcat agggcggtgg gcttccggtt tggcccccat	tctattcatt ttcctgagcc ctttgaccgg ccatgtggtg ccccggctca	actcactgcc ccactcagca gcctctggct aaggtgtaca ggagggtggg	cetgececta ggetetgett cettegtage acegecaace gagggggaag	60 120 180 240 300 360 418
<210> <211> <212> <213>	706	ns				
acagtgcagc tttottacgc agacctgtat gttetteta tctagaaaag tatgcaagaa tagtatggga ggaccgattg agaagtattg tattetcatg	246 attggagcag tgtttcoaga catgtagttt aaacatacoa gatcgatcag agagtcat agagtccat ctgaccttgg actttggaga attgatgct tatatgaagc cggattggat	gcattgaatt cacaatttga attccaaaga cacacetgaa agctcattoc cagaagttca ctgaaagcga aggagcggac aggctgtaga atttgggagt	gctaaaatct ccctgcgact actcgtcgc agtttctgtt tgaggatctg aaggcactta gctgactaaa atgtgcagaa ggaagataag aaaagtgaaa	egeceggete ttgetttgtt acetecttg cetgatgaaa categecaet gaagatttte cttgatgeag cagattgttg agetecaeca gageetegaa	atttggctgt atctctattc agtttcatca tgtctgcaga atatccaaaa ggcagaaacg agcgagaacaa ccaaaattga tgcagtatgt	60 120 180 240 300 360 420 480 540 600 706
<210> <211> <212> <213>	439	ns				
gcctccccac tcaagaatga tgatcctgaa tgcacccttg gcgtggtgga	gggttgatcc cccacagtgc gcccgtggtg gatgttagac ggtgaccaag ggtgacaagag cctggtgaag	cogttcatcg tttcctgagg aagaatcccg aacggggagg gaggaggtta	acgatttcat ggccagaaat agacgagaat agccccttcc agaactcagt	cetggccete cagegaggag tggggtgcca tteggaggag caggetcate	cataggaaga ctcaaggacc gacatcaagt gagcactgca cccagctgga	60 120 180 240 300 360 420 439

<210> 248

<212> DNA <213> Homo sapiens

<2TT>						
<212>	DNA					
<213>	Homo sapier	ıs				
<400>	248					
cccacqcqtc	cqqaataaaq	ataqataaga	cttccgatgg	accaaaactt	ttcttaacag	60
aaqaaqatca	aaagaaactt	catgattttq	aaqaqcaqtq	tqttqaaatg	tatttcaatq	120
aaaaaqatqa	caaatttcat	tetqqqaqtq	aagagagaat	tegtgteact	tttgaaagag	180
	gtgcattcag					240
cattacaatc	attagattet	caaattggcc	atttqcaaqa	tettteagee	ctgacggtag	300
atacattaaa	aacactcact	gcccagaaag	cqtcqqaaqc	tagcaaagtt	cataatgaaa	360
	actgagcatt					420
	tqtatqqaaa					480
	tgaaagtaat					540
atocccaqtq	taatatattt	ggtcaagact	tacctqcaqt	accccagaga	aaaqaattta	600
	ggctggttcc					660
aactgcgaca	gagactacat	gagatagaac	tcttaaaaat	atttaataaa	aaacaaaaaa	720
aaagggegge	-					730
333-33-						
<210>	249					
<211>	466					
<212>	DNA					
<213>	Homo sapier	ıs				
	-					
<400>	249					
attgetgecq	ctggatcgac	tgetttgeet	tgtacgacca	gcaggaggag	ctcgtgcggc	60
	ggtccacatc					120
	aagatacaag					180
	ggagaagccc					240
	tetcaaqate					300
	ttqtcaqaaq					360
	cactaaacct					420
	cctaagaaag					466
<210>	250					
<211>						

<400> 250 ggagcggctg ccacggaaaa cgcctggccg gacggtggct ggcggccctg cctgggcgcg 60

108

aaaacaaca	ataacaaacc	ccgcggcctt	ctctcagctt	cctttctcct	cacgacggcc	120
tccacagtcc	ggagcccggc	ggagcccgga	cctgggggg	agagetgeet	ccacggccgg	180
CACCCAGAC	cccaccatca	cagtcgccac	cacctcagtc	catccttggt	accggcaatg	240
gacttcatat	cctccagtgc	acttgtaact	qactt g gaca	cggaatacta	agaactcact	300
retatectea	teccagtege	gccggcggtg	accatetegg	ctcttttggg	cttaactgcc	360
actectetaa	actotatota	actttggggg	caccatggac	caaagtggga	tggagattcc	420
tatascecte	atcattagag	caccgaatca	gaaatacagt	gaccagacta	ttagctgctt	480
cttgaactgg	accotoggga	aactaaaaac	gcatctatct	aacqtttacc	ctagcaaacc	540
antaantoto	taaaagctgg	gggcagctgc	tctgaccage	agcttttcgt	gccgtgtacc	600
ctcctttttc	ctacttetee	cctccagtct	tgaatcaaat	aggtetett	tggtagaccg	660
casaatatt	taaattetaa	ggttgtgtct	cctgagtgtt	cgaaccatca	ttaatatttt	720
cotastasaa	ttcagttaat	tagtaagagg	aagcagaaat	atcaagggac	ttaaqaattg	780
acagaggagg	secadacaca	gtggctcacg	cctgtaatcc	cagcactttg	ggaggccaag	840
gcaggcaaag	coccagacac	ggagttcgag	accadectta	cogcatogt	gaaaccctgt	900
gegggeggat	cacgaggeea	ttaactgggc	ataataacac	atacttataa	teccagetac	960
tog	aacacaaaaa	ccuaccyggc	9099099090			963

<210> 251

<211> 894 <212> DNA

<213> Homo sapiens

	<400>	251					
acaa	ggaccc	ggatgtgtgt	ggtggcggcg	qccgaagagc	ttgtgtgcgg	agctgagagg	60
cota	tanata	Badaadacac	ggcggccccg	atttattete	atgaacaaga	tggatgacct	120
caac	ctacac	taccoatttc	tgaattggcg	ccgggggatc	caggagatte	gagaggtccg	180
eact	ttccaa	tatcaggaga	ggttcaaaca	tatcetteta	gatggagata	ctttaagtta	240
toot	22222	totaataaaa	ttggctgcta	catagettet	cgacccctga	ccaaggacag	300
coat	tattt	gagatatata	ttgtggacag	tagagtagg	ggcaccattg	ctatagaact	360
caat	catter	tactacaget	tggatcacca	acctaactaa	tracctaact	ctgtagccta	420
ggcc	ccccag	caccacagec	tgtacaatgg	constrons	aaccaccaat	ttgggtcaaa	480
ccat	getgat	gatggtaagt	thanchatan	cattanger	gratectta	atgtgcagac	540
gtgc	aactec	ggggaccgga	ttggctgtgg	caccgageee	totacostca	tacccatate	600
cgcc	cagate	ttetteacea	aaaatgggaa	gegggegge		tacaactaca	660
cccs	igatgga	ctgttcccag	cagtgggcat	geacteety	ggcgaggagg	cycygocyca	720
cctc	caacgct	gagetgggee	gtgaggacga	cagcgtcatg	atggtggaca	gccacgagga	780
tgaa	tggggc	cggctacatg	atgtcagagt	ctgtgggact	ctgctggagt	acttagggaa	
gggg	caaaagc	atcgtggatg	tggggctggc	ccaggcccgg	cacccactca	gcacccgcag	840
ccac	tacttc	gaggtggaga	tcgtggaccc	tggagagaaa	tgctacatcg	CCCE	894

<210> 252 <211> 861

<211> 861 <212> DNA

<213> Homo sapiens

<400> 252
tccogggtcg acgatttogt ctggagtgtt agcaccagta ctggatgtga cagcaggcag
60
aggagcactt agcagcttat tcagtgtccg attotgattc cggcaaggat ccaagcatgg
120
aatgctgcog tcgggcaact cctggcacac tgctoctctt tctggctttc ctgctcctga
180

WO 01/53455	,				PC1/US00	0/35017
ggagtgaatg gcagcaagag caccagaagc atggccagtt agtgccaagc egcgttgcta atttgttete gtetcactct tgaaaattaa tagactagag	ctcacgcacc ctgtgaagga aggtgatttc ttatgaatgg caaaggaaca tacagaatct attcaacttg ctgaatcact ggtatgattt	tgcggggag agaaatatcc cgagctcagc cttcctgtgt accetggttg ttggatatgt tccagagggt tccagagggt acetttaca cagtgaaaag ttccttgagt	gggacggcct gggcctccta gatacagaac aatgctcagc ctaatgacce ttgaactagc gcatcagtgg ttcaatgtct ctttttagag taccaagtgt gtcacttgaa	ctctctgagg atgcagtaat tcataatgat tgacaaccca acctaaggtc tttatgccaa ttgtgtaaat tttgtaaatg tgtattgtg	egetgeetga gtggaetgee gtcaageace tgtteactca ttagatggta gtaagtgetg ggtttacata gtgaaagatt gaaggaaaag	240 300 360 420 600 660 720 780 840 861
<210> <211> <212> <213>	556	ns				
tttgctggca cttggatcgc tgcactccac cctgaaaccc gattgctgac cacaccaggg tgatgtttat	agacaagagc gctgggattc ctgcttcagc gtagctgatg cacaatgtgc tacggcattg tttcgtgcac tcatttggtt aagtttccaa	gtccccggat aggacaaagc gtttgagata tgcttttcac ctcagtactg ctgaagttgc tactactcta	ttgccacctt gttggtgatg cagcctcact cctccactca actgtatcoc ctgtagaatg cagaggaat tgacattttg tgaattagaa	gagttagcct agaaccctac gccatgatta aatgctgcca gggataaaaa gtcatttata acaactggag	ccaagggttc agcacaggat tataccgaga tcattgcaaa catcagaggg accaacaggc gtagaatagt	60 120 180 240 360 420 480 540
<210> <211> <212> <213>	435	ns				
aaaaaaaggc ttetgggggg aggaeagtec aggaggtegg gtagggggtt	taatagtacc agttatcccc tattctcatc atcccctaaa accaattcca tactgaaaaa cttaggtatt	ctggggatcg tacgggagga gtaatatcca ataaagcact tttgaaacac	gtattggcct ggccacccct aaggcttcca ccctccacc ttccaaagca tgaaaaagtt gctccaacca	gactttaatc aactgcccac acctatcttt tgtggcaaat ttaccaggaa	tgcctagggg ttttacttaa ccaatttcaa ttacatgcaa gggcaaagct	60 120 180 240 300 360 420 435

<210> 255 <211> 698 <212> DNA <213> Homo sapiens

<400> 255

cctcatttcc tgatcgaaca gcctcacttg tgttgctgtc agtgccagta gggcaggcag gaatgeagea gagaggacte gecategtgg cettggetgt etgtgeggee etacatgeet caccaqccat acttcccatt gcctccagct gttgcacgga ggtttcacat catattcca 180 gaaggeteet ggaaagagtg aatatgtgte geatecagag agetgatggg gattgtgaet 240 tggctgctgt catccttcat gtcaagcgca gaagaatctg tgtcagcccg cacaaccata 300 ctgttaagca gtggatgaaa gtgcaagctg ccaagaaaaa tggtaaagga aatgtttgcc 360 420 acaggaagaa acaccatggc aagaggaaca gtaacagggc acatcagggg aaacacgaaa catacggcca taaaactcct tattagagag tctacagata aatctacaga gacaattcct 480 caagtggact tggccatgat tggttagtct cgctctgtca cacaggctgg agggcagtgg 540 egggateteg gttcacccca acctttgcct cacgggttca agggattctc gtgcctcagc 600 cttccaagtg getgggattg caggtgtgcg ccagtacgcc tggctagttt tagtattttt 660 tgttacagac ggggtttcac catgttggct gggctggt 698

120

<210> 256 <211> 736 <212> DNA

<213> Homo sapiens

<400> 256

gtttgaacag cccggaaacc cgggcgaccc acgcgtacga actccgccc catgggggc ccactttttc gctttgattc cttcttcccc caaagaggtc ccagctaccc catcctccag 120 aagggacccc attgccccaa cagcgactet tetetetaaa aagaccccag caactetage 180 ccccaaagag gccctcattc ccccagctat gactgttccc tcccctaaaa agaccccagc 240 aattccaacc cccaaagaag ccccagctac cccatcctcc aaagaggcct ccagtcccc 300 ageagtgact cettecaett acaaagggge cecatecece aaagagetee teattecaee 360 agetgtgact teteetteec ccaaagagge acetacteet ccagetgtga etcetecate 420 ccccgaaaag ggcccagcaa ctccagcccc caaagggact cccacttccc cacctgtgac 480 teetteetee etcaaagaet eccetaette eccagettet gteacatgta aaatggggge 540 cactgitect caagcateta aagggettee agcaaagaaa ggeeccacag etetgaaaga 600 agtacttgtt gccccagete cagaaageae gccaatcate acageteeca eteggaaagg 660 tecacagace aaaaagagtt etgetaette aceteetata tgeccagate eetcagetaa 720 gaatggttct aaagga 736

<210> 257 <211> 77 <212> DNA <213> Homo sapiens

<400> ctccgcctcc tatctttaaa	caaagtactg	ggattacagg	tgtgagccac	cgtgcccagc	caagacettg	60 77
<210> <211> <212> <213>	499	ns				
tgtagagcaa atgaaggata attggaagta ttcctgcttg ctctaggctg ggagatctga	tggtaagaac ggattgcaag taagaatgaa gaagatattt tttgtatttc gttttggtta atctctactc aattcaatag	ggattatta tgataaagca atttaggttc agtgatcaca cggcttgcca tttatcagga	gacaagttca agctaaaaat taggacatta tacacttctt atttctcgtc tatggaacag	tcaattaagt ggtgaaacaa gtatcagtga tacctgataa tgtatgccaa atgctatcat	aaaattagac gggatgtetg ggacagtaat cgtetetett gtaettteaa ctaettaaag	60 120 180 240 300 360 420 480 499
<210> <211> <212> <213>	621 .	ns				
teccaggatg caaccaggaa cetecgggga agagcagtee ceagateeta geteaaggee caaccaegag ggaggagaat tgaggagggg	259 gtagtcagcc gacaccccgc gaggagacgg ctgtcagagg cagctcatct gagctgact ttgatgctca cagggtgagt ttgatgctcc gagaagctga aaagtattac gagaggtgtg	cccctgaaga agtttaagga aggagaggag gcatcctgaa atgcagagct acagtcggaa gctcaagga ggctggagaa agctcacagt	acgettagag actggaeggt egagaagget geggaggtea ggaggagaag actagaggaa tgaatacaag taacageete	aagcaaaatg ctgagggaag atgcttcgct gatgaggccc atgatgcagg cgctttatga agtgagaaca ttcagccagg	aaaaactgaa cottggcaaa cocgcattga tggagcgctg aggctgagaa coctagcagc tcaagctgag ctctgaagga	60 120 180 240 300 360 420 480 540 600

<211> 414 <212> DNA <213> Homo sapiens

<210> 260

tgggcgtatg cgctgataac tcttaaatca gatgaaatat ctttcacctt	gegagecaeg cetteaeeet ttgteatgee ctggggaagg atgtttattt tgaaagteca	teegeteetg etteteeatt gaatgataca taaatacata ttgetgtetg	ggtgcaggta cgcactcatg gaatgtaatg acatttcaga atttgataaa aagccactag atgcaccata	ggaatgtgtg gaaccagtaa cacatagttt ttattgttga aaagccacct	gcagtagaag gcttctttcc ccctagttta ttggaagtga gaattgcaat	60 120 180 240 300 360 414
<210> <211> <212> <213>	620	ns				
ctgagaaaca acagaccagt agcatagata aaggacagtt gaccgtteec agaagcacaa accaaagcca ggcagcaagc taccacagct	ctactcatag ttgagcttga atggagacat tgcaaagggg ctagtgctta ctgacagtta ctggcagccac aaaccactga ttcctgatca	gtgtcagaat ctggacattg aaagctagat caacacagct ccttccaagg ccagtcctct gcaaggttgt agagaaggca atatgcaaac	gggcatgagc atcatgcagg catgatggag gacatcatgg gagagctgca tcoggacaga agcgctgaaa gtcagcgaac atcccagcaac	ctcacaggct gattccggaa agcatccaga gaagtactcc tcaccaataa gcagtaaaga gcaaggagaa acatccctta	ccagaaagtg ttataacacc aaagtctgac gctcactgta gaaaaacctg gtcgacctcc ggttttagaa cctctccct	60 120 180 240 300 420 480 540 600
<210> <211> <212> <213>	418	ns				
	ctgcctggcc		cccacaagaa tcaacaatag			60 120

180

240

300

360

418

acatgacago caaggaccco gtggtggctg atotgatgaa gaaccccatg gcctcgctga

tgctgccaga atcagaaggg gagttctgca gaaaaaacat cgttgatccg gaagatcccc

gatgtgteca gttaacgete actggccaga tgategcagt gtetecagaa gaagtagaat

ttgccaagca agccatgttt tcaaggcacc cagggatgag gaagtggcct cgtcaatatg

aatggttett tatgaagatg aggatagaac atatetgget teagaaatgg tatggagg

<210>	263	
<211>	441	
<212>	DNA	
<213>	Homo	sapien

<400> 263

60 tttcqtcaqa qccqcqqqaq qacqgttqcc tggtattatt agcaaqcaqc aaatatggcg gtggcgcgcg tggacgcggc tttgcctccc ggagaaggat cagtggtcaa ttggtcagga 120 cagggactac agaaattagg tocaaattta cootgtgaag otgatattca cactttgatt 180 ctggataaaa atcagattat taaattggaa aatctggaga aatgcaaacg attaatacag 240 ttatcagtag ctaataatcg getggttcgg atgatgggtg tggccaagct gacgttgctt 300 cgtgtattaa atttgcctca taatagcatt ggctgtgtgg aagggctaaa ggaactagta 360 420 catctggaat ggctgaattt ggcaggaaat aatcttatag ccatggaaca gatcaatagc 441 tqcacagctc tacagcatct c

<210> 264 <211> 832 <212> DNA <213> Homo sapiens

<400> 264

tatttegage ggeagttggg geggtaccag agggtgcctg gaaggatacg geccagetce 60 120 acaagagcga ggaggcgaag cgggtgctgc ggtattacct cttccagggc cagcgctata 180 totggatoga gacccagcaa goottotacc aggtcagcot cotggaccat ggccgctott 240 gtgacgacgt ccaccgctcc cgccatggcc tcagcctcca ggaccaaatg gagaggaagg ccatttacgg ccccaacgtg atcagcatac cggtcaagtc ctacccccag ctgctggtgg 300 360 acqaqqcctt cagcatcqcq ctqtqqctgq ctqaccacta ctactqgtac qccctgtqca 420 tetteeteat tteeteeate teeatetgee tqtegetqta caaqaccaga aageaaagee agactctaag ggacatggtc aagttgtcca tgcgggtgtg cgtgtgccgg ccagggggag 480 aggaagagtg ggtggactcc agtgagctag tgcccggaga ctgcctggtg ctgtcccagg 540 agggtgggct gatgccctgt gatgccgccc tggtggccgg cgagtgcatg gtgaatgata 600 getetetgae aggagagage attecagtge tgaagaegge actgeeggag gggetgggge 660 cetactgtgc agagacacac cggcggcaca cactettetg cggaaccete atettgcatg 720 eccgggeeta tgtgggaccg cacgteetgg cagtggtgae cegeacaggt atgageeggg 780 aggetggget tgagagagat cegggeteag caccettgaa gaggtggagt gg 832

<210> 265 <211> 714 <212> DNA <213> Homo sapiens

<400> 265 tttegteggg ggegggetee acetteacet etgeettetg etetgettea tgetgeecga

```
ggacgetgee atggetgtge tgacggeete caaccaegtg agcaaegtea cegtgaaeta
                                                                     120
caacatcacc gtggagegga tgaacaggat gcagggeetg egggteteta cagtgecage
                                                                     180
eqtqctqtcc cccaatqcca cqctgqcact qacqqcgqqc gtqctggtqq actcqqccgt
                                                                     240
qqaqqtqqcc ttcctqtqqa cctttqqqqa tqqqqaqcaq qccctccacc aqttccagcc
                                                                     300
togatacaac qaqteettee eggtteeaqa eeeeteggtg geecaggtge tggtggagea
                                                                     360
caatqtcacc cacacctacq ctqccccaqq tqaqtacqtc ctqaccqtqc tqqcatctaa
                                                                     420
tgeettegag aaceggaege ageaggtget gateegeagt ggeegggtge ceattgtgte
                                                                     480
cttggagtgt gtgteetgea aggeacagge cgtgtacgaa gtgageegea geteetaegt
                                                                     540
gtacetggag ggeogetgee teaattgeag eageggetee aagegaggge ggtgggetge
                                                                     600
acqtacgttc agcaacaaga cgctggtgct ggatgagacc accacatcca cgggcagcgc
                                                                     660
aaqcatgtga etggtgetge qgegggggt qetgegggae ggegagggat acae
                                                                     714
```

<210> 266 <211> 1872

<212> DNA

<213> Homo sapiens

<400> 266

cccqqaattc ctgqqtcgac tatttcgtgg aaaggctgcc actctgcatg tgcacagtga 60 ccagaaqccc cttcacgatg gggccctcgg gtcgcagcag aacttggttc gcatgaagga 120 qqcqctqaqq qccaqcacca tqqacqtcac cqtqqtcctq cctaqtqqqc tqqaqaaqaq 180 gagcqtqctc aatqqqaqcc atqcqatqat qqacctactq qttqaacttt qccttcaqaa 240 ccacctgaat ccatcccacc atgcccttga aattcggtct tcagaaaccc aacaaccttt qaqttttaaq ccaaatactt tqattqqqac cctqaatqtq catactqtqt ttctqaaaqa 360 aaaagtteet gaagagaagg ttaageetgg teeceetaag gtgeetgaga aatetgtgeg 420 tttggtcgtg aattacctgc ggacacaaaa agctgttgtg cgtgtgagcc ctgaggttcc 480 totocagaat attotoccag toattotoc aaagtotoag gtcagcccag agcacgtogt 540 tetectcagg gacaacattg ceggagagga getggagetg tecaagtece tgaacgaget 600 cgggataaag gagetetaeg cgtgggacaa cagaagagaa acetttagga aateateaet 660 tqqcaatqat qaqacagata aagagaagaa aaaatttctg ggatttttca aagttaataa 720 aagaaqcaat aqtaaqqqct qtttaacqac ccccaactcc ccatccatqc actcacqttc 780 tettacgetg ggtecatece tetegetggg cagcatetea ggggtgteeg tgaagtegga 840 gatgaagaag cgccgagccc ctcctcctcc aggttcaggg ccacctgtgc aagacaaggc 900 atoggaaaag gtatotottg ggtoacagat tgatttacag aagaagaago ggogagogoo 960 agetecceet ceaceacage caccaceage gagteceetg atecceaace geactgagga 1020 taaggaggag aacaggaaga gcacgatggt ttattgctgt gcgtcattcc ctactcagge 1080 1,140 caagegette tgatggaegg geetetteet gaceteggae ettteccagt gtetettetg ccctggctct gattttcctg ttgttcttcc tcctttcagg ataaaagggc tcattgtata 1200 cccagaattt acttcctttg gggtttacat ataaatgcat taataacaga gatttgtttg 1260 attgaggttt atatttttt gaaggaggta aattatatgc aaattttagg ttgataatat 1320 teacetgtet gaaatteact gatacttgga aatgtteetg tgaagaacte tgetttattt 1380 taattcatta ttaattcatq tttttcttat tqqatattca qttccaqaat ttattqccaa 1440 tttttcttaa aactagattg tatccataaa ttgaccagta tagtcaattt ggatagaact 1500 gaaactttct gtctacctgg taaaactaag tgcctaaaaa catgaactat aaatgtagtt 1560 actaggaact cacaacttat atatactatc cattcaatga tacataggac ccaatgtctt 1620 tgtgtttttg aggttttcct gttactgtgt actttgccat tttacatagt tcactaaaaa 1680 gaaagaagtg ggagaagaag gggggtctat tcattattct atattatgat tctcttcatt 1740 attotqttct cttcattatt ctattcattt cttcacccat ttattcacta aacaqtqaca tagtacttac ttgatgctag gtattacacc agttttgtgg gctataagag tgaataacaa gcacgtgacc tt 1872

<210> 267

<211>	684	
<212>	DNA	
<213>	Homo	sapiens

<400> 267 tgtagataca gagtagctaa ttctaaaatt catatggaag gcaaagaaac taaattagcc 60 aaaacaattt tgaaaaagat ttcaaaaaaa ttttgaagga atcatgctgc ccagttttaa 120 gacttactat aaagetgtga taatcaagge aatetggtat ttatgaaagg ataaacacat 180 agatcaatgg aataaagtcc aaaaccagac tcacataaat agcaattgat ttctgacaaa 240 ggtgaaaaga caactcaatg gggaatggag agtttttcaa cagatgattt taaaacaact 300 gaacatccat atgcaaaaaa ataaacctac ctaaatttca cagcttatac aaaaattaac 360 ctaaaatgga tcacqqatct aaatqtaqaa ctaaatttat aaaattttta qaaqaaaaaa 420 atccatagge egggeacggt ggeteatgee tgtaatecea geactteaga ggetgaggeg 480 540 actaaaaata aaaaataaaa aaaaaatggg ctgggagtgg tggtgcacac ctqtaqtccc 600 agctacttgg gagactgaag cacaagaatc acttgaaccc agcaggcaga gqttgcagtq 660

684

<210> 268 <211> 453 <212> DNA <213> Homo sapiens

agtggagatt gtgccactgc accc

<400> 268 ggtcgacgat ttcgcccgcc gtcggacgag gagcgggagc cgtgggagcc gtggacgcag etgegeetgt egggeeacet gaageegetg cactacaate tgatgeteac egeetteatg 120 gagaacttca ccttctccgg ggaggtcaac gtggagatcg cgtgccggaa cgccacccgc 180 tacqtagtgc tgcacgcttc ccgagtggcg gtggagaaag tgcagctgqc cgaggaccgg 240 gegttegggg etgtecetgt ageeggtttt tteetetace egeaaaceca ggtettagtg 300 gtgqtqctqa ataqqacact ggacgcgcag aggaattaca atctqaaqat tatctacaac 360 gegeteateg agaatgaget eetgggette tittegeaget eetatgtget eeacggggag 420 agaagattcc ttggggttac tcagttttcg cct 453

<210> 269 <211> 525 <212> DNA <213> Homo sapiens

<400> 269
ggcacyagaa ctggtgctta atttaatgcc aattcatgat gtaggtttct aagcagoaca taaaaaggggc tttttaggta gcactgagta ctttactaaa aatacaaaaa ttagccaggg 120 gggggggtgc acgtctttaa tcccagctac tcagggcgg ggccaggggg tggggtagg 120 tgggggtagg gacaggagaa gcacttgaac ccaggaggcg gaggttgcag tgagctgaga 240 ttgtgctact gtactccaac ctgggcacaa aacagagtga gacactgtc caaataaata 300

WO 01/5345:	5				PCT/US0	0/35017
aaaggaaaat aaaactacaa	aaaatactta aacactgctg	aaaataaaat agaatatact aaagaaatca atactgtgaa	taaccaagga cagatgacac	ggtgaaagac aaacaaaaac ctgcc	ctctacaaag	360 420 480 525
<220> <221> <222>	880	re)		'		
ctgaccctgc ctgaccctgg cgtctccacc cttccccag caggtctgga tgtaacccg ttctgtgcc nnnnnnnnn cctggcgca gtgactacac ccagcttttt tccatgagca	cattgagccc acttgtcact cttctgactg cgtgtcctca gcctgtctcc gcaggccct atcagaactt nnnnnnnn atatcotctt ctagaggcat aacccctga gatgaactgc	tgatcccatc taaggtggtc aatctgtgac actgagtggt gccgcttcat agactcagcc tgttagggat nnnnnnnnn attttgetgt tagtgcactt ggaaccttc aggaagtact taaggagtatc tcagagagtatc atcagattg	ccatattcag agactaaggc gacccaaac ctcaaaagtt tgagcaagct gcagggtctc nnnnnnnn tagcatatgt gcttatgcat tgtggactcc taccttgagt aggaggactt	ctcagaccct ctgaccctgg ctagacagcc gaaggtgagg cagtctgggg accctagggg nnnnninnn gatgaccttg tacaaagtga tgcctgcac ccctcacccg ggccttgcgg ggctggctcag	gaaccgagct ccctatacca ctacctgatc agccggtaaa tcattgggcc tataagggat nnnnnnnnn acttcacctc ggtcctgcca ctcacctctc ctacaggcca gctcagaacg	50 120 180 240 300 360 420 480 540 660 720 840 880
<210> <211> <212> <213>	1066	ns				

<211> <212> <213>	
<220>	
<221>	misc_feature
<222>	(1) (1066)
<223>	n = a,t,c or g

<400> 271 tgaccetegt aagngegttg gaatteeete acetgtgtgg teeteacett cetgggecae 60 egeetgetga aaeggtttet ggtgecaaag etgaggaggt tteteaagee teagggeeat 120 coccepetge tgctctggtt taagaggtga gtgageteac ageccegagg cagggcaggg 180 gagggcccct gagctgaggg gttggctcca gggttatggc cagggctgga ggaggaggaa 240 ggetetgtgt catggagaac tetetggege cecagggeag gagecagtgg gtggetteaa 300

acaaagcagc	atctttgtgg	tgtttcacca	gttcttagtc	ccagttacag	caggtgactg	360
tggtggacga	aaactggact	caacagtttc	ctccattcag	ggatcccagg	ccatggagca	420
aggagggccc	gaatcagtac	ctccctcaga	tcacctggac	agtgtgagac	aaaaagccgc	480
agggaccatc	cctggagggg	gattcagcag	gctcgatcgg	ggtccaggtg	ctggtatttt	540
tcattagcct	ccaggggatt	ctgatgtagc	cagcagcgtc	cttggacaac	agtttgagat	600
ctgctgcttt	tcaaactgga	ttccttggag	cgctggaaat	ctcagcgatg	tcacagggca	660
ggagagggag	gttgtggagg	gaaaattcag	acttcccgcc	cagcccacca	tttcaccagg	720
cagctctaaa	tttatgtgtt	ttataagcca	aggttcacac	aaaaaagaaa	attcgctggg	780
gggaaaaaaa	cagtttctat	ggcttaaaaa	aaagtetgaa	gaccaccagt	ctatttcaat	840
actctatttt	gttgatgaag	aagctggtga	ccaaagatac	ccaaagacta	agtcaggggg	900
atgcaggggt	acaggggtgc	ctctcacttt	cccaaagtga	gatccacata	ccacagcaaa	960
atgatttgag	ccagcctgtg	gatgaacaca	tttaaaattt	tatttataaa	tacatttact	1020
gttacatttg	acttctcttt	attaaataca	tttgtgattt	ataaaa		1066

<210> 272

<211> 659 <212> DNA

<213> Homo sapiens

<400> 272

tacggggaat tegteaceta ecaaggggtg getgtgaege ggageeggaa agaaggeate 60 gcacacact acaaaaatga gacggagtgg agagcgaaca tcgacacagt gatggcgtgg 120 ttcacagagg aggacctgga tetggtcaca etetacttcg gggagccgga etecacggge 180 cacaggtacg geocegagte eceggagagg agggagatgg tgeggeaggt ggaceggace 240 gtgggctacc tccgggagag catcgcgcgc aaccacctca cagaccgcct caacctgate 300 atcacatcog accaeggeat gacgacogtg gacaaacggg etggegacet ggttgaatte 360 cacaaqttcc ccaacttcac cttccgggac atcgagtttg agctcctgga ctacggacca 420 aacgggatgc tgctccctaa agaagggagg ctggagaaqq tgtacqatgc cctcaaqgac 480 goccaccca agetecacgt ctacaagaag gaggegttee cogaggeett ccactacgee 540 aacaacccca gggtcacacc cctgctgatg tacagcgacc ttggctacgt catccatggg 600 gtgagtcgcc tgctggaggc accacctcca ggggctccct ccccaggetc tgggtcttc 659

<210> 273

<211> 412

<212> DNA

<213> Homo sapiens

<400> 273

acgcgacttc tcgggtcgac ccacgcgtcc gcacatataa cacatcacgc accttttgag 60 tggctacctt ggttctcgcc tttcttttca agagaccatt cttcaacaga actgtaagga 120 ttettettgg etgaatcaga tgtgaegeat eccaettetg egtttgaggt etageacata 180 ccgctccaag ggctttgacg tcacagtgaa gcactcacac ggaagctgga cgggcttcgg 240 tggggaagac ctcgccacca tccccaaagg gttgaatact tattttcttg tcaacattgc 300 cactattttt gaatcaaaga atttettttt geetgggatt aaatggaatg gaataettgg 360 cctatcttat gccacacttq ccaagccatc aagttctctq qaqaccttct tc 412

<210>	274	
<211>	522	
<212>	DNA	
<213>	Homo	sapiens

<400> 274 gaattaagag ttactccggg ccaaatggcc ggagttgtca gatctggcag cgtcttcgct 60 ggggctccag ggagctgctg ctggggtgga agctctcaca ctctttctcc acgtgccctt 120 tocagtteec tgacategtg gagttetgeg aggccatgge caacgeeggg aagacegtaa 180 ttgtggctgc actggatggg accttccaga ggaaggtaag gcgtctgatc caggtctgga 240 gctgggattg aggagggcaa gaggcttctg gatgggcaca gagacaccag ctctgggtga 300 ccaggetca gccaccacag ggttacggcc gagetgetca ggccttggct gagecaaggg 360 actocatggt ctgtgcagac tgcgtgccat ctgttgcggc aggtgctttg aattggcaaa 420 gggacagage egggeatggt getetggggg ttgggggaag gactaaggte agagcaaact 480 ctcctggctt cagtacttgt gaatcagagg gtttaaaaga aa 522

<210> 275
<211- 650
<212- DNA
<213> Homo sapiens
<220>
<221- misc_feature
<222> (1)...(650)
<223- n = a,t,c or g

<400> 275 gaattotgot tatgcaccaa tttgcagoto otgcaaccat gatgcagoot caccoggaco 60 tttcaacatt ttccctttca cctaaaactg tatttttctc tgctaagacc ggctacccta 120 ctttcatttt cctttcactc ttcttggctc ttttgggcct tttaggaatt tgggatgatt 180 caggetetga caggeatggt actagattta ttttaggetg etettttget gttgtecaac 240 aggccaagga gagatttaaa tgatttatcc aatatttgct aaatagtcat gtgtttcatt 300 tatcccatat atagttcage cttaatattg tttttgtttt gatttgttac actagtgcat 360 acatagagac gtgaagccag aaaatatcct catcacgaaa cattccqtqa ttaagctttq 420 tgactttgga tttgctcggc ttttgactgg accgagtgac tactatacag actacgtggc 480 taccaggtgg taccgctccc ctgagctgcn ggtgggggac acgcagtacc ggccccccgg 540 tgggatgttt ggggcaattg getgtgtetn tgetgagetn getgteaggg aagtgeetet 600 ggtggccagg aaaatcggaa tgttggatca gctgtatctg attaggaaga 650

<210> 276 <211> 497 <212> DNA <213> Homo sapiens

<400>	276					
cccttgatga	ccatctagtc	agtgcggtgg	aattcccatg	acagacgtat	ctgactggtc	60
atgtggtcag	caagcetege	ctttggtcag	gccctggagg	gtacagetga	cccatagggc	120
cacttccatg	gcactgggca	agtggctgta	ttggaaatga	agtcgttgcc	cccgatttct	180
ttggggccag	gttgagcttt	cctgcccaga	gcacggaggc	taaagggggt	gggctttgga	240
ctggattggg	gctgacctca	gcctacacct	gcaggaggag	gtggagacag	aggtggcctg	300
ggaggaatgt	gggcacgtcc	tactgtcact	gtgctacagc	tctcagcagg	gtggcttgct	360
ggtaggtgtg	ctgcgctgcg	cccacctggc	ccccatggat	gccaatggtt	actcggaccc	420
cttcgtgcgc	ctgtgagtga	actggggtag	gcaggcggga	ggtgaggata	aggeggtgae	480
tcctcacctc	tccaggg					497

<210> 277 <211> 428

<212> DNA

<213> Homo sapiens

<400> 277

tggtggaatt otogcoatgg aatatgcaco aggsggsact otggtgagt toatocaasa gegetgtaat tocotgotgg aggaaggaga catcotgcac tottottge agatoctgcat tottottge agatoctgcat tottottge agatoctgcat catcytgcac ocaacotac octgcacocga gacotocaaga occaagaacat octgcttgac aacacogca tggtcgtcaa gatoggtgat ttoggcatot ocaagatoct tagcagcaag agcaaggoot aacacggtggt gggtacocca tgctatatat occotgagot gtgtgagggc aagooctaca accagaagat ggacatotgg gcootgggct gtgtcotcta ogacotggco agcotocaaga gggctttoga ggctgogaac ttgccagaca tggtgctgaa gatoatgg

120

180

240

300

360

420

428

<210> 278

<211> 427

<212> DNA

<213> Homo sapiens

<400> 278

qtccaqtqtq qtqqaattca ccaqqtqtcc qqqqcaqtqq taqtatctqq qctqctqcaq 60 qqcatqatqq qqctqctqqq qaqtcccqqc cacqtqttcc cccactqtqq qcccctqqtq 120 ctggctccca gcctggttgt ggcagggctc tctgcccaca gggaggtagc ccagttctgc 180 ttcacacact gggggttggc cttgctgtac gtgagtcctg agaggcgtgg gatggtgccc 240 agtgggggtg tatgggggga ctaggggagg gcagaactgc tggtcctatc agattcagca 300 gcgactggaa tagggacata ttttatattt ggaatccaag acttttcctt gattcatctg 360 gtotoottga atttcacact gttttctgct gtcccccaag gtcacttcct attccttcca 420 tgggagt 427

<210> 279

<211> 561 <212> DNA

<213> Homo sapiens

<400> 279

cccaqaatga ccgggtcgac ccacgcgtcc gcacccagct atggaggcag ctgcaggaac 60 aacttettt acceagagaaga aacctacact ccaaaagcte agaceggacea gatgaatgag 120 gtggaaacgg ctcccattcc tgaagaaaac catgtttggc tccaaccgag ggtgatgaga 180 cccaccaagc ccaagaaaac ctctgcggtc aactacatga cccaagtcgt cagatgtgac 240 accaagatga aggacaggtg catagggtcc acgtgtaaca ggtaccagtg cccagcaggc 300 tgcctgaacc acaaggcgaa gatctttgga agtctgttct atgaaagctt cgctaqcata 360 tgccgcgcg ccatccacta cgggatcctg gatgacaagg gaggcctggt ggatatcacc 420 aggaacggga aggtcccctt cttcgtgaag tctgagagac acggcgtgca gtccctcagg 480 taactactct gtgatcgggg ctctgtgaaa cggttttcct gtttatgacg gtgttgttga 540 aattttgaaa aataccacac a 561

<210> 280 <211> 792

<212> DNA

<213> Homo sapiens

<400> 280

atttttgatg ccatgtggct acattggttt tagaatacta ataaaatcca ttgcttttaa 60 aataaataaa taaaccccat agcacatcct ccatacaaca tctgttgtcc ctcaagatac 120 aattgttacc actatcatct aaccattatt ttatgataac tttaaaaatat caacttggca 180 agaaaatatt ccacaaaaca cactetgeet ttttaettta aagagteett ggetacetgg 240 gccaatatta ttotcatttg taggatttag gttccacaga atataatatg tgccttttc 300 tgtqttccct gcagatttgc aagtaccatc cctttttggg gccttacttt gcacctccag 360 catctgggaa acaatgtttt cctgttgcag actctctttg gtgcagtcac cctcctggcc 420 aattgtgttg caccttgggc actgaatcac atgagccgtc gactaagcca gatgcttctc 480 atgiticetae tggcaacetg cettetggce atcatatttg tgcetcaaga aatgcagace 540 ctgcgtgtgg ttttggcaac cctgggtgtg ggagctgctt ctcttggcat tacctgttct 600 actgcccaag aaaatgaact aattecttee ataateaggg gaagagetae tggaateact 660 ggaaactttg ctaatattgg gggagecetg getteeeteg tgatgateet aageatatat 720 tetegacece tgecetggat catetatgga gtetttgeca teetetetgg cettgttgte 780 ctcctccttc cq 792

<210> 281 <211> 1047

<212> DNA

<213> Homo sapiens

<400> 281 ggtcttggtt tcaagggatc atatgaaaag tgcccagcag ttcttccagt tggtgggagg

atcagctagt	gaatgtgata	caataccagg	gaggcagtgc	atggcttcct	gtttetteet	120
gcttaagcaa	tttgatgatg	ttttgattta	cctcaactca	tttaagagcc	acttctataa	180
tgatgacatc	tttaacttta	attatgecca	agccaaagct	gcaacaggca	ataccagtga	240
gggcgaagag	gegtteetet	tgatccaaag	tgagaagatg	aaaaatgatt	acatttacct	300
cagctggtta	gctcggggct	atattatgaa	taagaaacca	agactagcct	gggaacttta	360
tettaagatg	gaaacctccg	gcgagtcctt	cagtctctta	cagctcattg	ctaatgactg	420
ctacaagatg	ggccagtttt	actattctgc	caaagctttt	gatgtccttg	agaggctgga	480
tcctaaccct	gaatattggg	aaggcaaacg	gggtgcctgt	gtgggcattt	tccagatgat	540
catagetggg	agagaaccca	aagagaccct	tcgagaagtg	ctccatttac	tgagaagcac	600
aggtaacacc	caagtagaat	acatgatccg	gatcatgaag	aaatgggcca	aagaaaacag	660
agtgtccatc	ctaaaatagc	gccagtgcac	taggaaccag	cttctacttt	gacataaaac	720
tggaaatcat	tttcactcca	gctttaatct	gtgatacagg	gctctgtttt	attgacattt	780
teetteettg	ctctttaagc	ctcaaggtca	gagactgact	tgctgagact	tagtctcctg	840
gctgaacaga	gtgccatagt	ctgtgaccct	gtatgatect	agtagcaata	agattttgga	900
				ttatgcaatt		960
aaggaaaaca	gtataacttt	tttttgttag	cattttatgg	cattgtctcc	tggctgcaat	1020
aacaaacatc	tttgatgttc	aagaatc				1047

<210> 282

<211> 357 <212> DNA

<213> Homo sapiens

<400> 282

ctttaaaagt ttctgatgaa ttagtgcagc aatatcaaat taaaaaccag tgtctttcag 60 caatagcatc tgattgcagaa caagaaccta aaattgatca atatgcatt gttgaaggag 120 atagagagat cctttttcct gataaaaaag atagacaaaa tagtgagaga gaagctggaa 180 aaaaacacaa ggtaagagaa atcacagtac accaaagggt cactgttgat tttgtagcac 240 tgcatatagt aacactctta ctaccacagt tatctcactt cttttyctct agaatagaaa 360 aggtaatcat ttatttagaa aaacctattt tttgcccggct gcggtggtc atgccta atgcctg 357

<210> 283 <211> 536

<212> DNA

<213> Homo sapiens

<400> 283

ctggggtgcc cogcaacctg cottccagec tggagtatct gctgttgtcc tacaaccgca tegteaaact ggegeetgag gacetggeea atetgacege eetgegtgtg etegatgtgg 120 geggaaattq ceqeegetge gaccaegete ecaacecetg catggaqtge ceteqteact 180 teccecaget acatecegat acetteagee acetgageeg tettgaagge etggtgttga 240 aggacagttc teteteetgg etgaatgeea gttggtteeg tgggetggga aaceteegag 300 tgetggacet gagtgagaac tteetetaca aatgeateac taaaaccaag geetteeagg 360 gcctaacaca gctgcgcaag cttaacctgt ccttcaatta ccaaaagagg gtgtcctttg 420 cccaccttgt ctctgggccc cctttccttc ggggaagcct gggtcgcccc ttgaagggag 480 ctgggacatg gcacggcaat ctttctttcc cgctccactt cgaatggggg aagacc 536

<210> <211> <212> <213>	440	ns				
gaggeggegg agtacaaacg tgaaggaaca tgaagcaact cegcaaaaca cagatgetaa	284 tgcggcgctg tggttcgtcc catgcaaagc gcaggctgct tgagaaagag ggccgagtta agcgaaggc cgcaaagaaa	ategaegetg caggaateaa gaagaaetge eggttagegg aageagaage	tcatggttga gcgcgaagcg gtgagaaaca ctcaggagca aagctgaaga	ttcaggtgcg ttctgatgaa agcggctgaa gaaaaagcag ggcggcagcg	gtagttgage cagegeaaga caggaaegee getgaagaag aaageggegg	60 120 180 240 300 360 420 440
<210> <211> <212> <213>	119	ns				
	285 tegtecaega attegeeggt					60 119
<210> <211> <212> <213>	398	as				
atttaaatgc gaagatgcca ctggaaggat aaggtacaag tctttaaaaa	286 tttaagtgtg tgtccccagg tcggatgcat atatttttt aagtctatct ggctggaaag ccagttgctt	ttacgactat ggaggccaac atatatgggg gtggagcata ctttctctag	ggctatgtct caggttgctt agggagggtt ctgtattcca aaaacttaat	gcgtggagtt tatacttcgg tcaaatgatt accatcggtt	ttcactcttg tcaaatgatg ttactttgga gtgaggaaaa	60 120 180 240 300 360 398

```
<210> 287
     <211> 1177
     <212> DNA
     <213> Homo sapiens
     <220>
     <221> misc feature
     <222> (1) ... (1177)
     <223> n = a,t,c or q
     <400> 287
cocacqcqtc cqctcctctq qqqqtcaaqa qqaccccqcc aqccaqcaqt qqqcacqacc
                                                                   60
gogottoaca cagocotoca agatgaggog cogggtgato goacggccog tgggtagoto
                                                                  120
eqtqcqqctc aaqtqcqtqq ccaqcqqqca ccctcqqccc qacatcacqt qqatqaaqqa
                                                                   180
cqaccaqqcc ttqacqcqcc cagaqqcqqc tqaqccqaqq aagaaqaagt qqacactgaq
                                                                   240
cetqaaqaac etqeqgeegg aggacagegg caaatacace tqeegeqtqt eqaaceqege
                                                                   300
gggcgccatc aacgccact acaaggtgga tgtgatccaq cggacccqtt ccaaqccqt
                                                                  360
gotcacaggo acgoaccoog tgaacacqac qqtqqacttc qqqqqqacqa cqtccttcca
                                                                   420
gtgcaaggtg cgcagcgacg tgaagccggt gatccagtgg ctgaagcgcg tggagtacgg
                                                                   480
cgccgagggc cgccacaact ccaccatcga tqtqqcqqc cagaaqtttq tqqtqctqcc
                                                                   540
cacqqqtqac qtqtqqtcqc qqcccqacqq ctcctacctc aataagctqc tcatcacccq
                                                                  600
tgcccgccag gacgatgcgg gcatgtacat ctgccttggc gccaacacca tgggctacag
                                                                   660
cttccgcagc gccttcctca ccgtgctgcc agacccaaaa ccgccagggc cacctgtggc
                                                                   720
ctcctcgtcc tcggccacta gcctgccgtg gcccgtggtc atcggcatcc cagccggcgc
                                                                   780
tgtottcatc ctgggcaccc tgctcctgtg getttgccag gcccaqaaqa agccgtgcac
                                                                   840
coccacacet deceptore facetadae ecacecaca dagacacec dedeceded
                                                                  900
cggagacaag gacetteeet cgttggeege ceteageget ggeeetggtg tggggetgtg
                                                                   960
tgaggagcat gggtetcegg cageccecca geacttactg ggeccaggee cagttgetgg 1020
ccctaagttg taccccaaac tctacacagg acattccaca ccacacacat acacacaccc 1080
cccaccctcc tgccaattaa acagtagcca ttccccnaaa atnnnnnnnn nnnnnnnnn 1140
nnnnnnnn nnnnnctegg ceeegeeta tteaceg
                                                                  1177
    <210> 288
    <211> 100
    <212> DMA
    <213> Homo sapiens
    <400> 288
tgaattttca ttttacaggg aagtgtttgt ttatgtcagg gctcagtgag gtccagctga
                                                                   60
cccatatgga tgatcacact ctaccagggt attgaagctc
                                                                   100
```

```
<210> 289
<211> 406
<212> DNA
<213> Homo sapiens
```

aactaattgc tagcacaaat gccaggaaca aggaagttat tttgaaggaa	ggcacgagag aatgettgac eccectetag teetetgtea ggatgtacte aatggettta	tttattttet agtgtcatgt gcacttcaaa ctcattcatt cccaacaagt	ttaatttact ttagagtcca tggttgggta tgcttcacct cccaaagttc gtaccacaag ccaagaaatg	agaaagagaa atggattcca tcagaaggcg cagcatcctt tatcgtcgaa	aaacaaggca gagaccatgg caccactagc ctcatgaact	60 120 180 240 300 360 406
<210> <211> <212> <213>	359	ດຮ				
cctcgagaac tacccggcct agcgtcctgc ttcccgggtg	geggeagege agttegegge acgtgagece acggeetece agggtegtga	ecegettggg egaegtggee aggeegeagg gtgtgteaac	gacggcagtg cggccggtgg cagtcctgga cccacetteg tgcggggcc gcctgcggcc	ggacetegta etgeegggee tgteegaett tgteeacaee	ctccgccacc cttcgatggc cttggaggag gctgtggcgc	60 120 180 240 300 359
<210> <211> <212> <213>	954	ns				
agtgtcaaga gcaggagtgg catcogcatc cctatctggg tagtgatccc caggaccctt cccaggccag ctgaatcaca aagagcctgt tctccttgac	cgacatggtg aatgaaggg acagatgcet cccagcagte cccetectet ctetecetac ctaagetgec cccaggetga agggectete ctaagggtet cagttccgtg	atgaacggaa acctacgatg ttgttgtggcg ctettacccc cacataacct aagcactcag acgtetectc tagggcacac ctttcetcca tcteccagce	gtggtacagc ccaggtgctg ggacccaat gccagacate tetetagact ggttgccacg ccctccatg ggaacctact ttttagctct ggacatagca agcacatagc agggaagtca	accetgtate gcetatggtg gtactetata tgceettage etgceetgga gcaccecac gtgtggteca aagtetetca etctggaaca tetgcatatt	tgtggatacg gcctggatgc acaagtactg tgtgggggtg agcttttccc tttaggctat gggcagatgt gggctcccc ctgctttatg ttctctgggg	600 120 180 240 300 360 420 480 540 600 660 720

780

840

900

954

tetgggttet geagaggeet ttttataeat eetetggeta egtetgtgte eettetggeg

cetteaggea ecaccette caggeetega aaggeagegg gtetetetag gtgcacteca

ccctctgtgt tgctttgttc tgaaaacaag aatcaaatta acgaaaaaaa aacaagcaca

agtttattta tttatttgag acacagcetg ggcaagagag tgagaettca tete

<210> 292 <211> 595 <212> DNA

<210> 294 <211> 426 <212> DNA <213> Homo sapiens

<213>	Homo sapie	ns				
<400>						
tacgcactga	ctggtgcgtt	ggttattgtc	accgggatgg	tgatgggaaa	tatcgccgat	60
tatttcaatc	tgcctgtttc	cagtatgagt	aataccttca	ccttcctcaa	cgccggcatt	120
	tcttcctcaa					180
	ttctcctgat					240
gegetgttet	cggcggcgat	gtteattete	ggggtggtca	geggeateae	catgtcgatt	300
ggtacattec	tggtaacaca	aatgtatgaa	gggcgtcagc	gcggtteceg	cctgttattt	360
	tcttcagtat					420
gegegeagea	ttgagtggta	ctgggtttat	geetgeateg	ggctggtgta	tgtcgctatt	480
tttattctga	ccttcggctg	tgagtteccg	gcgctgtgca	gccatgcgac	taagttgggt	540
accgccagta	gttatcccag	tctggacgtt	gtacagctac	ggacattgaa	tgcgt	595
<210>	202					
<211>						
<211>						
	Homo sapie					
(213)	romo sabrer	18				
<220>						
	misc featur					
	(1)(552)					
12237	n = a,t,c or g					
<400>	293					
		t.c	abbaa====			
cctgtagag	ccgctgctga atggcgaaag	toggggtgaa	cccaageaaa	tataaaaaa	gggaaaaagc	60 120
atteteegas	artesagete	aggettgaa	aaccgagcac	catgaceget	taccegeatat	
tataataatt	ggtcagegtc	agegratege	categeeegt	gguergatge	ccyaccegga	180
castotcato	gecgatgaac	cygteege	gerggatgtt	Leagugegeg	cycaggtgct	240
	atggatttgc					300
cccgccggcg	gtggagcaca	cigoigatga	agugatggtg	atgracetgg	geegetgegt	360
yyayadggga	acgaaagacc	aaaccttcaa	Laaccegege	carcegtaca	ctcaggcgct	420
tassetsees	acgccgcgcc	Lgaacccgga	cgategeege	gagegeatea	agctcagcgg	480
	agcccactga	arccaccgcc	yygttgegee	ttcaacgccc	getgttgteg	540
gegnttegge	CC					552

<400> 294 tagcgccacc ottgaacggg tactaaatca coctgacga gacgctsgaa gatatcgtca gtggttattc caatgtgtt gggtaatacg gtgttatcat coccogtgbcg googstatc catcaccgat aaagacgctc agggtggcga ggtgtatct gatgccaggc cacgtcacg ggcatatgga gatgtgccag ttggtggag gacaacggaa ggttgccag ttggtggag gacaacga ggttgccag ttggtggag gacaacga gttgacccg ttggtggacg gcaaaccgat ttatacgct tttttcatctt cattacataa atgatttgat gaataaact catcat	g atttccetgg agatagtea 12 cc egegagttta egegtgaege 18 cc etttceggee egaegatgat 24 cc tggeggatga ttaacttgee 30 cc tacategege tttegatega 36	0 0 0 0 0 0
<210> 295 <211> 340 <212> DNA <213> Homo sapiens		
<400> 295 gggtgctggc gtatccggg attaaagtot cgacggcag cgcagtatcg ccgccaggat tgcattgcgc acggcgac cctyctattc ccgtcacct gagcttgcgc gaagctga cctaccttac cctaccttac cacggttact cgcagctac gacggttact cgcagctc gacggttact cgcagctc gacggttact tcgcgactc gacggttact tcgcgactc gacggttact gacggttact gacggttact tcgcgactc gacggttact gacggttact tcggataaacgc ccggact gcgactgt tgggtaaaa tgggtaaaa	a totggcagge ttcattcacg 12 t gaaagatgtt ategetgaac 18 g gcaggeggte geggaaateg 24 t gttegetetg tgtgacaage 30	0
<210> 296 <211> 281 <212> DNA <213> Homo sapiens		
<400> 296		

<400>	296						
egggcagcag	cagcgcgtgg	cgctggcccg	cgcgctgatc	ctcaagccga	aagtgctgct	60	
gtttgatgag	ccgttgagta	acctcgacgc	caacctgcgt	cgcagcatgc	gcgacaagat	120	
ccgcgagttg	caaaagcagt	ttgatatcac	ctcgctgtac	gtcacccacg	atcagagcga	180	
ageetttgeg	gtttctgata	ctgtgctggt	gatgaacaag	gggcacatca	tgcagatcgg	240	
ctcaccgcag	gateteeggg	tacggagatt	gaattggtaa	t		281	

<210> 297 <211> 155 <212> DNA <213> Homo sapiens

agatttcagg	297 ttacctagag tggtcagcag gtttgatgag	caacgcgttg	ccattgcgcg			60 120 155
<210> <211> <212> <213>	217	ns				
cagcactggt gcgcaaatct	298 acgccgaaaa ttggcgtcga cgctggcggc tgctcgctgg	ttcactgggg gggcgtgttt	cgtgacattt gccgtgttta	tcagccgtgt	cctggttggt	60 120 180 217
<210> <211> <212> <213>	568	ıs				
tttacgette tgaccceget gtccgttcca ttggccgcat aaggcaaaac tcgaaaccga acatttctga atgagccgac	299 tctgatcgct tgcgctgaac gtaccaggcg gatgcagatt caagcgcggt ccgcaacgcg tctggcggaa caccgtttgc cgtttctatg aacgtctcgt	ggtatcgcgg attgttgacc tctcagctcg aaagtgaagc aaagtcggta gctggcgata gacacgcaaa ttcttctgcg	gtetggacca acgttectgc attacaacag egaaccagca aagtgetggg tegttgegat acgttgaagc	cgaagatatg gccggacgtt ctatgttggc ggtcactatc ccacctcggt cacgggcctt gctgccggca	geggaagaca gacettgaeg gttateggea ategatageg etggaaegta ggegaaetga eteteegttg	60 120 180 240 300 360 420 480 540 568

<213> Homo sapiens

<210> 300 <211> 366 <212> DNA

ggcctgaaat gacatcggtg gacgtgttca ggtctggttg	300 gegetgaate teggtgaeta egtggaetga tgaeteaaeg atggtetgaa acaetgaagg	eggetecate egteetgeca tgeaactggt etttgetget	gattacggcc gaattcggtg gttgcaacct cagtaccaag	gtaactacgg gtgacacttg atcgtaacaa gcaaaaacga	tgtagcatac gactcaaacc cgacttcttt tcgtagcgat	60 120 180 240 300 360 366
<210> <211> <212> <213>	199	ns				
tcactattac	ttccgtttct cgtgttgacg gctgttgagc	ctggctgcgg	ttaatacgct	gggtattccg	gtcgatctgc	60 120 180 199
<210> <211> <212> <213>	140	as				
<400> gccaacgcgc aaaggcctgg gttcgcggaa	agcaagggct ttgatcgtct	gcccagtggt gtatgcggcc	atcaccetga tccagetegg	agctaaataa gcgttccggt	ccttgtcgat taatctgctg	60 120 140
<210> <211> <212> <213>	441	ន				
<400>	303					

cgcgcgaatg acgctcatcc ccggcacaca tctgctggaa aacatccaca acatctgggt 60 gaacggggta ggcacgaata gcgcgccgtt ctggcggatg ttgcttaaca gctttgtgat 120

WO 01/53455	,				PCT/US00/	35017
ctggtttegt gccggttgaa cagctacgcc caagttaaat	tttccgctac gtacgtatct ggtttaacgc	gtaacctctt tcccgacggt tgccgctgat cggacaaggt	cttctggatg ggaagtcatc ggcctcggcg	ctctcggcat atttttatca gccaacctgc accgctactt gcgcggatct	ccctgatgct agatgctcga tcctgttccg	180 240 300 360 420 441
<210> <211> <212> <213>	402	ns				
tegegatate caegteegge taccegtttt agaegeacea tttaaaaatt	tgtttgcgtg agccttgacg ggcggcgtca ttacagcgac gccagcaagc	ctctggaacg cgctttctgg tgcggctgtg tattaccgct ctcaggcgcg	ggaagtgatg cggcgaagtg gggtgtgtca ggcgaaattg ggatgtggtg	ggggcgtttg aaagatgaca ttaatgcagg tgcgccattg tgcgatgaag aagatgaacc gt	ttttctttcg cggagtttgc aaactgccgg tgttgttcga	60 120 180 240 300 360 402
<210> <211> <212> <213>	346	ns				
tttaccgccg ctgatgcgca atggatttaa gatatttcca	tgtttgtctg aacgcgcggg gcgaattgcg atctctcttt	caaacagtcg tgagatcccc cgatctgcgt gcgtggcggc	ctggatgatt ccacacgact gtcgagccac gaaattgtcg	tggttgggct tgatgaacag ggggtaaaac tgagtaaata ccctggacga ttggtc	ttcgctgtat tctgaaagag ccatcttgat	60 120 180 240 300 346

<210> 306 <211> 207

<212> DNA

<213> Homo sapiens

<400> 306

tgcggcgttc gacgagcccg	tecteagega tgaaggegat g cagagtetet aegagacaaa a gtgaacatgg cattgggttg t teactetega agataat	tatttgagc	agggggtcag	tacgcgtgct	60 120 180 207
<210> <211> <212> <213>	214				
acttgaaaaa atgtagagcg	307 tategecece gatgecaaeg e tgacaaagta gegattgteg g eggcaeggtg aaagaatttg g tgtggeggat geattaeagt a	attcagtac cctgtggga	gccaaatgtg	atgegecegt	60 120 180 214
<210> <211> <212> <213>	129				
<400> tacategtag gcaaegcaat aacegtgtt	308 tgacggggaa aacacattgc g cgggttatct gacgctgaac c	gtacgccac (tgcctgaaa (ttactacegt tgtgggaagt	tacaggagac gtcaggttat	60 120 129
<220> <221> <222>	358 DNA Homo sapiens misc_feature (1)(358)				
<223 _{>}	n = a,t,c or g				

gccggttttg cgcatcaat ggtgcttagc gatgactcaa cgtaccagtg cgccgactgc 60 aaatctgcc gccggccag taaggagtac cccagttcat caagaagctg gcttgccact 120 ttcggcaacg cgaccggatt aagcttcaat gactttgtct ggttatttgt aagtgcgctt 180

<400> 309

WO 01/53455	,				PC1/US00/3	5017
ctggcattaa	caataatttt tatcgggttc tcgcgataat	cacaccttca	actgaagaag	taatcccgtt	ctgatatage	240 300 358
<210> <211> <212> <213>	253	ns '	·			
gtcatcaact gattacattt	cctgagagaa gggggatgtt acatccctgg tccatgaaga	accgctgcaa cattaaagcg	atggcggaag gcgctggata	taccaacett atccgggtac	tgaagtgggg gacgtttaaa	60 120 180 240 253
<210> <211> <212> <213>	304	ດຮ				
tgaacaggcg cgcgactaaa ggaagtacca	311 gaaattggca gcgagctgcc cgctatcgtt acctttgaag ggcacggcgt	agcgtgtgat ctaacgtcat tgggggatta	tggeggtetg caactggggg catttacate	gcgaatattg atgttaccgc cttggcttta	ccgaggagta tgcaaatggc aagcggctaa	60 120 180 240 300 304
<210> <211> <212> <213>	344	ns				
<400> actctagagg gaaaaagtat	312 atetgetgat tageegataa	ggegttagat tgtgttaatt	ggagagcaac gcccctggtt	atcttcagca ctgttaaacc	acaggtatcg tgatgcgaca	60 120

180

240 300

ttctggtcgg cettaatcca ggatcgctat aacgtgatga cetgtattga aaaagacgce

tgegteetgg tegageaaga tetgaatagt gatggteagg eggageggat eetgtttget tttaatgatg acagagteat tgtetatgge tttgaeteag acagaaaaga atgggaegeg cttgatatga gtttacttcc gaacgaaata acgaaagaaa aatt

344

60

120

180

240

300

360

420

480

540

600

630

<210> 313 <211> 630 <212> DNA <213> Homo sapiens

<400> 313 agagtcaaat agcagatgca ggaagatgcc aggtgaaaga tgccggggtg gcccagctcg gagcatggtg gagctgataa gcgcctgctc

getgteeetg etgettgace tgeceacteg ecetetteee caeceegae aggtgattga ctteggatec gecageattt teagegaggt gegetaegtg aaggageeat acateeagte gegettetae egggeeestg agateetget ggggetgees ttetgegaga aggtggaegt gtggtccctg ggctgcgtca tggatgagct gcacctgggc tggcctctct accccggcaa caacgagtac gaccaggtgc gctacatctg cgaaacccag ggcctgccca agccacacct gttgcacgcc gcctgcaagg cccaccactt cttcaagegc aacccccacc ctgacgctgc caacccctgg cagctcaagt cctcggctga ctacctggcc gagacgaagg tgcgcccatt ggagegeege aagtatatge teaagtegtt ggaccagatt gagacagtga atggtggeag tgtggccagt cggctaacct tccctgaccg ggaggcgctg gcggagcacg ccgacctcaa

<210> 314 <211> 2285 <212> DNA <213> Homo sapiens

<400> 314

cgccttgtaa agaaacgagt tgagtgtagg cagtgtggga aggccggcag gaaccagtca 60 acgetgaaga egeacatgeg aagecacacg ggggagaaac egtacgaatg egateactgt 120 ggtaaggcct tcagcatagg ctccaacctg aatgtgcaca ggcggatcca caccggggag 180 aagccctacg aatgccttgt ctgcggggaa gccttcagcg accactcatc cctcaggagc 240 cacgtgaaaa ctcaccgggg agagaagctc tttgtgtcat ccgtgtggaa aaggetccag 300 tgagegegee tgetttagag acacaggatg atteagaceg gaaacagace tegtgggtgt 360 aagaggaage etetgtgage tegeacetta etgggtgeaa aagaateeae ggaacttggg 420 agaagtccag ttcctgtaaa aactgggaag acgaggcgtt ctcatcccat aggaggtttg 480 tgagaactca cgccgggggt gaaaatgtac gtctgtagca tggagaagcc ttcagggtac 540 atteagetet taacaaacac aggaggaett aatggeaget tggeatttaa tgteaaaate 600 caagecgtgg catttaatgt caaaatgact teagaceact tetagectte tgqqcccatq 660 agtaataatg agcacactag ggagcatctc tgtaaacaca gtggctgggg aaacccttcc 720 tagteteaet tgatteetea tgaeggaaat cacactaaag agagaaatea gtgaagtaag 780 gaacgtggaa ggtcatgaat qqqccqcaaa ccacqqccaq ctqcttqtct ttqtatqqct 840 tgccaqctaa caataqtqqt tccatcttta aqqaaqaaqa atqtttqatq qaqaaaattt 900 gtggccaatg aagtctgaaa tactteetgt catetgeece ttteeagaaa aacttggeeg 960 accettggte tacagcacgg gtteteagte gggegacgat ttggetgtgt aggeqteatt 1020 tggcaatgtc tagagacatt tttggtagtt agaatggggg gaagatactc ctgacttgta 1080 ataagaagac atcagagatg ctgctaagtc ggctccagca cacaggagcc ccccacaacg 1140 aagagttagt gcccccaaac gtcactgttg ctgaggttga aaataatcat gcagtcattc 1200 ctcaattact gcctccagca attcctccat ttttatgaat cttgtgagca cttacgctag 1260 gagaaatttc ttttacaaaa cttttaaaat acagttagtg ctgataattc ctatgtggaa 1320

atgattccag	ccatggtccc	ctcacttgag	catgtgaata	ttctcacgga	gagaagcccc	1380
agcgagattt	tccggtgaat	acgggattgc	acttactctt	tcatcacgga	aacagacccc	1440
cgagagaagc	cccaacgaga	ttttccggtg	aatacgggac	tgcacgtact	ctatcatcat	1500
gaaaacagag	ccccgttcat	aaatttttca	tetttattt	taaggttata	ctcctctaaa	1560
taacccttaa	gcctcatcaa	gaaaggtttg	tttatagtat	ttttactata	gctteatcet	1620
tgataacgtc	ctaatttcct	tctggacaac	ctccttgacc	aatggcatat	tgagatetat	1680
gtgacatgag	gatatttctc	agtaccactt	tgttactggt	acctgatgca	cacggattgc	1740
gaccagagca	tgatgectec	atcaagtggt	aatatgtttg	cagcctgctg	tccagccaag	1800
agtgacagat	acttctagtg	acttccccgg	tatccactct	catcttcttc	caatatcaag	1860
agaatccagg	ttetgteaga	ttagtaaggt	gtgctaatct	aaattttaaa	aaatctctta	1920
caggttttct	tgcagctggt	accatecatg	tetcacagee	ctggccactg	acagateage	1980
			tcttgaatgg			2040
ttcctccctg	tatgttttgt	tctttgcttt	acttttcacc	ttgcaaagag	atccagtacc	2100
tagtattgga	agatccacct	taacgaccgt	gcatatgaaa	accacagtct	aaggaagtga	2160
			ccctgtggcc			2220
ccctggactt	ecagacttet	atcacatgag	aaaaaataaa	actgattatt	ggtttaaaaa	2280
aaaaa						2285

<210> 315

<211> 1316 <212> DNA

<213> Homo sapiens

<400> 315 qqctqtctat caqtqqataa qqtqqqqqct qtctatcaqq qqaqaaqqtq qqqqctqtct atcaqtqqaq aaqqtqqqqq ctqtctqtca qtqqaqatqq tqqqqqctqt ctqtcaqtqq 120 agatggtggg ggctgtctgt cggtggagat ggtgggggct gtctgtcggt gtagatggtg 180 ggggctgtct gtcggtggag atggtggggg ctgtctgtcg gtggagatgg tgggggctgt 240 ctgtcggtgg agaaggtgga agcttgtact cagagcaggg gatatttaga cttgaagggg 300 ccagggagga aggtactggt tctactaagc cccatgttca ctgggcagcc actaagttag 360 ggaccgtgtg tgtaccgagt ggattccgac aaaqaagctg tctcaggagc cccagccagc 420 tgcagagggg ggcccaaget ccaaggetgg gtqtcaggtt tgccaggtqc tggctccqct 480 540 gccagetgta gttgcagegg teagetgeeg etetetggee ccatgegaac tgetgtgcca 600 ggtgcaccct gggggaccag gctgcctggg cttcctggaa ctggtgaagc tgccgccact 660 tectetatge tgtetecage aggeaattet gggtaaaega tetteatttg eetataaage 720 tgcacagete acaggeettg gaccgtttet geeccagece cagcattgge cetttggaca 780 gactetgaaa eegtgegeag aaegeaceet gteattaeaa atgaeteetg gaggeagtee 840 cogggggeet ggcaggagca cetgtgttte tgtggggtet gaaaatgaca gaccaatcgc 900 ttgaacccgg gaggeggaag ttgcaqtgag ccgagatcga gacattgccc tccaqcctgg 960 gcaacaaqag caaaactcca tetcaaaaaa aaqaaaaaaq tqccqaqtqq aqtcqtcacq 1020 eccqtaatce tageactttg ggaggcagag gtgggeggat cacetgaggt egggagtteg 1080 agaccaqect gaccaacatq qaqaaacccc atctctacta aaaacacaaa aattaqccqq 1140 gegtqtqcat qcctqtaatc ccacctactc aqqaqqctqa qqqaqqaqaa tcqcttqaaa 1200 cegggageeg gaggttgeag tgageegaga tegtgeeatt geacteeage etgggeaaca 1260 agagcaaaaa ctccatctca aaaaaaaaaa ggagagagag aaaccgggac cgcaag 1316

<210> 316 <211> 2486

<212> DNA

<213> Homo sapiens

<400> 316 ttttttttt ttaaacaaaa ctttattggt aatagttttc aaatatgttt acaacagcac 6.0 actyttcaag aggaagtote gteettegea geacacaggt tgaategeee eegcaccac 120 ccggggcccc accccaggcc tgagaactcc tcctgggatg gggagaagtt atgagagggg 180 gaaatacggg gatgaatggg gtggctcccc agcggctccc cacttttcta ttacqagaqa 240 aaaaagcaca aatgagaaag tgggggagag gtgatggaca gctgacagct aagctggagg 300 aggggegece aggatggggg aggeggaage tggtgggtga gtaaaacagg cageceetee 360 ccagcagete tagcettgaa ccccgggccg tggettgggg ggaettggce tettetgtte 420 cettttgcag ggatgeeete eccaetcage tgagggaagg etggaegtta aaatetageg 480 gagaataaaa ttaaggagtt ggggggaaac gctgctggga ggaaagactt gggcttgggg 540 ctcccctct qtctttttgq qggatqactc ctctttqgca qqqaqaqqqq caqctqcttt 600 gtctggcttt caaagcccaa qqqtqaaqac aqqtctqttq qqqaaaaaqa qaqcqqaqqc 660 ttcctaaagg ggcctagacc ctcgcaggat tggcagagag gattccccgg ggagggccc 720 aggggagatt agcageggg aggtteaaac cecageget cecttteeaa agteagtetg 780 cttctcttta aaatggattt gaggaatggg gggacatggg aggggtggga gtagaggaag 840 gagggaggga ggcactggtg gaacttaaat aagattttaa attgttqttt ttttaaaaaa 900 attetaqeaa qeaacccact gaacatgtca ctaaaaatct ctccttccca ggcaggatta 960 ctccgaaagg aaggttggcg cttcgttcat ttgcccttag caagtggggc ctgtggttgg 1020 gtgggatggg ggtgtgggtg gggqctgqag ttaagcqtga gcccctcttt ccataccctg 1080 tccctggata caccaqcaaq acctqqtctq actqqaqttq aqaaactcqt ttaaaacaqq 1140 cagaagtggg ctgggagggc tgaggggctg gggggctgtg gggaaagaga aagggaaaag 1200 tgggagaggg ggcaggaggg tgaaggggat gagggggagc agctggtgtt tctgtccctc 1260 tgattatetg ggetteetge teeceetace eetggagggt ggggtggggg tgaaattaga 1320 tgcaaggaac totggggece totggetgtt caatccaace ctcccaccce cccgaccaaa 1380 aaaaagaaaa aagaaaaaag aaaacccatg ggggcacagg catgccccta aaactcagaa 1440 aacteettge ccaaacttet cattgatgga aaacceggat ttettettee teatagtegt 1500 caaagttaac togtatoocc agggeettta aactttggta tgaagggage ttocacette 1560 ctotggtaga tggcaatcca gtcagttgtg gcaaaccact tgtggttctt gatatcgttg 1620 accepattet tgaggttece aaagegettg gtgagateta cetgcaggag gtteegcage 1680 aggicettea aqicaqaqet qaaqiqqqaa qqqaaqeqea eetteecaga qacqatette 1740 tcatagatot ggatgggctg gtctgcgaag aagggcgggt agccagcggc catttcatag 1800 ataagaaccc ccagggccca ccagtccacg qccttqttqt aqcctttgct caggataatc 1860 tcaggggcca ggtactcagg ggtgccgcac aaggtccaag tqcqqccctt cacqcgcttq 1920 gogaaacoga agtotgtoac otgaatgtag cootgetggt caatgagcag attotcoggo 1980 ticaggicc tgtagatgag atccagcgag tgcagatact caaaggicag gacgatctgg 2040 gccgcgtaga aacgggcatg gggctcactg aaccttccga tccgccgtag gtgtgagaac 2100 atctccccgc cgggcacgta ctccatgacc atgtataagt ttgagttgtc cttgaaggag 2160 aactcgagtt tgacgaggaa cggaaagttg acagcttgca ggatgcgctt ttcattcagg 2220 gtgtgttcga tctgtttcag tttccccacc ttctgttagt cgaggatctt catggcatag 2280 tggttecegg teteettgtq tttcaccaqe atcaccegce eqaagqaqee egtgeeqagg 2340

```
<210> 317
```

ttettggegg eggeggegtt geceat

<400> 317

ttttttttaa gtttatataa etttattata agtataatt tgtttgaatt aagtttatat 60 aaetttaata taageattaa tttgtttgaa atataaagta ttataaaaata ttgtaattaa 120

gtottgatto gttcaaactq atccaaqtqq gctqtqttct qagcqqqact ttcccatttt

ttaagaaaat cttctttggc tttggctaag aattctttca cgctctcctg ctcgctgccc

2400

2460

2486

<211> 867

<212> DNA

<213> Homo sapiens

gcttacagat	aatttttaaa	atatatacat	tatgactaat	ataccaaaat	tatttatatg	180
tacacattta	tatttaatac	ccaaagaaaa	tttactacca	cattgctaca	gtagatatta	240
acctgacatg	tttattaatt	gatcctatag	gtataattat	aggtcagcat	aattttacag	300
tctattctt	tattttacta	aattaggaat	gccactattc	ccggacaaat	aaatgcaggt	360
gatgtggcca	cccaagaatc	atagtagete	ttcagttagc	tatcttgcaa	tctctgatat	420
aattctacta	tgtgaataga	gtgaattcca	attetteate	aaaaagtgct	ggtggaggtt	480
gtcaggtgtg	ttccagtata	gattcccaat	ccaacggccg	gcagatggga	gagcagcaga	540
gatggaaatt	gtgctcagaa	taagccctct	ttctcataat	acttgtattt	ctcatgctga	600
gagtagctgt	gcacttttgg	tgtttagaga	agaacttctt	tggaagaata	ttttctggtc	660
aatttgacca	atgttacatg	taatctgaat	tagtctgtaa	gattctttca	acctetttte	720
ttctctcaat	acggttttac	tcagactgag	agctgtcttt	ctcttcaatg	ctttgggaat	780
tcagtgcttt	gtgtctaagc	ccctattagt	atcacatggt	gtctgtgagt	gaggggggt	840
gtcaccgtga	gaactcctgg	agctgct				867

<210> 318 <211> 1683

<212> DNA

<213> Homo sapiens

<400>						
	aggaaccagt					60
	agagagccag					120
	aagccctggg					180
	atttactgag					240
	tcagcatgtg					300
	gaaacctttc					360
	tctagctctg					420
	cccttttaaa					480
	ttatcccaca					540
	attcctcctt					600
aatctgcctt	cccctgcttc	tctaaccttc	tgttccactc	cttgccccac	agtatttttc	660
tgacctaaga	aacagtattg	tgaacagcca	gccaccggag	aagcagcagg	ccatgcacct	720
gtgttttgag	aacctgatgg	aaggcatcga	gcgaaatctt	cttacgaaaa	acagagacag	780
gtgagtataa	agcgtcctgc	ctagaaatct	cagacaattg	ctatttttca	aatcaacgaa	840
acaggcagtt	gctttaaagt	ctttgacatc	tgtgtttgga	ggccatctaa	agcaatgcaa	900
tccaatagaa	aagtgagcca	tgttaaacag	gcaaaattca	ttttaataat	atattttatt	960
taacccattg	tatctaaaat	attgtatcag	tgtgtaatca	gtattttaaa	attgtgggtt	1020
ttcacattct	ttttgtacta	catttccaaa	atcctgtgta	ctttacattt	aacagcatat	1080
ctcagttcat	acgttttcat	cagaaatact	tgatctgtat	ttagatttca	taaatttaca	1140
gttgacaaag	tagattcctg	taatacccag	attgtttcaa	acacacctag	ggactttcca	1200
gtaactgcat	tgagtatctg	ggctttgcaa	ttaactttta	aattttattt	aattttaatt	1260
aatttaaaac	aaggcatttt	aatttaaaat	taagatgcag	ttggggagct	gaatgttaaa	1320
ttgtatttaa	tttggattca	tgttctcagt	cacactggcc	ataattcagg	ggcacggtag	1380
	ttaggcagcc					1440
	aaggaaatga					1500
gggcaacttc	ctacttctgt	cagtgagatt	tettttgtge	tgccatgagc	ccaaggtagc	1560
	ccagatttga					1620
	tgatctttga					1680
taa					=	1.683

<210> 319 <211> 1606

<212> DNA <213> Homo sapiens

<400> 319 tttttttttt ttcgtatttc aagggttttt attctgagca gtaggtacaa aaaataatga 60 catagitigtig totaattotig tatagiticag goaccotoca caggotigtica atototigatt tgatetactt ttaccagatt taacagatcc ttgaatttac tttactgtat atacttectt 180 cttgctcaca ttgggaatca aactaatgct ggaaacatgc atcttcagac ttcattgagg 240 aattocagat tgagacacgo tgggatgtgg attgagtcca tggttagaga agatggatta 300 aatggaaaca aaacaggaaa catgtgcttg gcatctaata gcagttgctg agggtcattc 360 coctetteta gttgtgcctg gattgttcgt ataaaggcca ctgttacccg ttcttcaaat 420 tcattcaggg gagtataaag gtttaaaatt ttgacaatct gctgggtgct gagggaggta 480 cacagggagc agatagcete tgegteetee tgggttttet tetttaattg caggagetgg 540 getgettgga teagaggtte catggtetga actgetecae tetggtgaag qtttetteee 600 cgaagccact cctcaagctg acttatattg tacctgagtt gcatgcctgt gctccaagag 660 cagacgtcct tecqcaggag caggtcatta agagtcactg cgttqatcat qtaqaaqaqc 720 tgtttgaata cctqcaggat gatctcaggg tccaagccct ggtcacacat qactqtatqa 780 aaggcattca totggoggat gatagettee aggcqqtatq aqttateete atetgccatq 840 ctggaggagt gcttctggga gccagtgggc ttcacaccag atagaccctg aatgctctaa 900 ttttccaaca tggcagaaac tatcatcggc tgtaacacac cctcggcaat tttaatgagc 960 tgctggtaga tctgaatgga aaggtcacgt caggcacctg acggtattcg gtgaggtcaa 1020 aattettaag acagtgttca attetgettt geagtgttet gagteatgaa geectcatee 1080 cogctgtact gcttcagaca gtgaagaagg cgggcaggtg ttggataacc agaatgacgt 1140 catctcaaag tcatcattgt gctttttcag gactttctta atgccgttga tggtggaggt 1200 cagcagggag tgcaccttga gatcgtcgtt ggtgtagtcc cgcgtgccgg atgcacatgt 1260 agaggatgta ggcggggaga cagggcactg tgcccgacag catctggggc ttcaagtctg 1320 tcaccaggtt coggatgagg agggcctcgt cctctttgtg gtactccagc atgccctgga 1380 aatcettete ttteegetgg accgtgacet geetgttgag etcatggege tteeteteac 1440 totgggccaa tgcctgggca gcttctaggt cctgggcttt cttcatgtaa atcttcagtt 1500 getttttgag etteetetea ttetttteea gettttetae eagttettta aggteeagat 1560 totoqttggt cagoogggat atttoctgct gaacgooget ogtgco 1606

<210> 320 <211> 676 <212> DNA

<213> Homo sapiens

<400> 320 ggcacgagga gaatactatt cttaaagctg ctgaagtgca ggtcccacca aaatgagtag 60 taacacctga agcaaaggcg tttatttgac gatqtttgqc ctaccaaaag gaggactgca 120 ttgatgccca gcaactggcc tgtgaccccc tacttgctgc attatatcca assattggtc 180 tttgtgagta gccctgctgg ggctgctatt gcatcaacct ttggggtgtc caacagctgt 240 tettegaatt gagactgact ccaaggccac aaactgttca acacacacaa agtggacaaa 300 tagcatttag cagcaggttt ggaacgtaga gaatctgaat ggatctgatg aaacctgaac 360 caggtgctta ttttgttgct tttttcccat ccactgagca tgacagcatg gattctcttt 420 aaggagaaac catgggcagc tocagccagg cotcatagga aaaggcccgg catgaggtto 480 tggcgtcaat ggccactgtg tatggctgct ctgagtgagg aaaaaactaa aaagaaaaac 540 tggttccatg tactgtgaac ttgaaaacat gcagactcac gggggttcct gatgcaatge 600 ttcagatgaa gattgtggac ttgaaaatac agactagaag gccgggcaca gtggctcatg 660 cctgtaatct cagcac 676

```
<210> 321
<211> 1502
<212> DNA
<213> Homo sapiens
```

<400> 321 ttttttttt ttttctattq cttaataqaa aacatatttt tattccqtac tttaaaaata 60 tagactttct agcaacttat aaatttctat tataataata aattgatact ttgagccaag 120 aaaacaatat aaccaaaaat toattigtic oottigtita ggggtgtitt acatttatgo 180 ataattttgc ttttataaaa gatgattgtt acaatcaggt atacaactac ttggttatgt 240 ctaagttctg tctcttaaaa tatgttcttt tagagaattc atttaatcat cttattcttt 300 tottcaattt totccaaaca gtggtagaag tactatttga tagacagaat aaagaaaatt 360 gtttttggcc acacccagat catactgata tctacagcat agtcctggct acaggggage 420 tcaactctaa ctcgtgaagc gggcctggtt tagaaagtaa caatgaggta gtaactcatg 480 540 gtttaggtac atccaaaatt tetteatagt etgeacteat tecetttgee eagegaceaa 600 ctgtgaccat tegetetgaa ttetgacttt cagggcaate tttetttaaa tgttccacag 660 agccacaaag tttgcaaccg ccaccatcag catagagtcc tttgggatta tcaggacaag 720 atctagacag gtgccccatt tctccacaaa caaaacattt tgcaaaagga aattcgccaa 780 gagooggic tactttagcc ttacacttgg ttatttcgtg ctctqtggac ccacacctqt 840 aacatatccc agtgcccatg tcttgatttt caagggggg ggggcaatct gcaattccat 900 gaccaggttt tctacaatgg aaacacacca ttgcattttt ctttgccqct tqtcttttta 960 atcttcttcc ttcccqtcqa ctqtctttct ttaaaqcaac tqcaatttct tcccttactt 1020 cctcactgtc tgttgctata atttgcccat tgtgaaccat ctgtgaattc tgtcttaggt 1080 attocatgaa tocattoaca tottoattta aqtactottt titotttttq tiottittat 1140 gttttgettg gggtgcatca tttttgaggg atagcctatt ggcttcaagt tgtttacgct 1200 ttggtaggtt ttggcttgtt ccctcaaagg atcccttctt catgtcctcc catgatgttg 1260 caggcaaggg totottgtta tatgtggtac taactcgggc ccacctggtc ataatttcat 1320 cagtggtacc ttatcaattt ttaagacaag caggggtggt tagccatcaa caacaaaaac 1380 aacaaaacta aagagacatg ctatatcact atatgtcaca tatgcccata tgttaaactt 1440 ttaattatta aaacactttt tatttcagtt agatatctgt atacatattt aatggctata 1500 1502

```
<210> 322
<211> 989
<212> DNA
<213> Homo sapiens
```

<213> Homo saprens

```
<400> 322
gttggggtct cactctgtcg cctaggctgg agtgcagtgg cgtggatctc tgctcactgc
                                                                     60
aagctccgcc tcccgggttc atgccattct cctgactcag cctccqqaqt agcqqqqact
                                                                    120
acaggegeae gecaccagge ceggetaatt ttttttttt gtatttttag tagaaaeggg
                                                                    180
gtttcaccgc gttagccaga atggtttcta tctcctgacc tcatgatccg cccacctcgg
                                                                    240
cotoccaaag tgctgggatt acaggcgtga gccactgtgc ctggccaaac gctggtaggt
                                                                    300
ttgggagtga gaccacatta catttaaata tatttacaat gttttctgct ctattcttta
                                                                    360
gtagactttt cctcacgtgg tcctacgcat ttctttctaa gtttattttc atatagccta
tecetgteta caatttaaat tgggatette tatattetag ttattatttg taaataagaa
                                                                    480
aactactgac ttttttctag tatattttct caqaataqqa ttttctattt ttctataaaa
                                                                    540
tgaccaatgt tatgaagett cqtaaqtttt qtcaaaqtqa tacacacata caqcaaaaaa
                                                                    600
```

tccccttccc acataactct accttgatga ataccatttg tcttgtctaa	cagaagtata agatacaata gggcaatatg attetettgt cagttagtaa tttgttttta	atttttaget gaaaagttat ttetagtagt ccattttate attggtgggt	ttttattttt tgattttgta ttttctttag tcctcttatt	aattattetg tattaattte ggttttaaag tecaaetteg	gttgttacct ataatcagtt ggatacaatc tactgttttc	720 780 780 900 960
gttggtgggc	gtccttattt	ctgatatta		-		989

<210> 323 <211> 1106 <212> DNA <213> Homo sapiens

<400> 323 teggacgegt gggeggacge gtgggetegg tegettagtg tgteteetag tteetateet 60 gaactacaca ctgaagttcc actgtctgtc ttaattctgg gattgcttgt tgttttcatc 120 ttatctgtct gttttggggc tggtttattc gtctttgtct tgaaacgccg aaagggagtg 180 cogagogtto ccaggaatac caacaactta gaogtaagot cotttoaatt acagtatggg 240 tettacaaca etgagactea egataaaaca gaeggeeatg tetacaacta tateceecca 300 360 agcctattac cgaaacctgg caaggagttt cagctattag gcaacctgga ggagaaaaaa 420 gaagagccag ccacacctgc ttacacaata agtgccactg agctgctaga aaagcaggcc 480 acaccaagag agcctgagct gctgtatcaa aatattgctg agcgagtcaa ggaacttccc 540 agogoaggoo tagtocacta taacttttgt accttaccta aaagggoagt ttgccccttc 600 ctatgaatct cgacgccaaa accaagacag aatcaataaa accgttttat atggaactcc 660 caggaaatgc tttgtggggc agtcaaaacc caaccacct ttactgcaag ctaagccgca 720 atcagaaccg gactacctcg aagttctgga aaaacaaact gcaatcagtc agctgtgaag 780 ggaaatcatt tacaacccta aggcatcaga ggatgctgct ccgaactgtt ggaaacaagg 840 acattagett ttgtgtttgt ttttgttete cettteecag tgttaatggg ggaetttgaa 900 aatgtttggg agataggatg aagtcatgat tttgcttttg caagttttcc tttaaattat 960 ttctctctcg ctctcctctt cccactccca cactgaaaaa caaagaagaa aaaagaaaca 1020

aaaccataaa caaaatctat gaagaaatgc attgtagaaa cattcatgtc cactgatggt

1080

1106

<210> 324 <211> 2366 <212> DNA <213> Homo sapiens

toctaagaag agaagggaaa aagaaa

<400> 324

gaaataigita aaaltigoogi ggggaagaag atgaaacetga actggetgaa aagaateggg 60 ctggtggtaa toctggattie cacgytggitg gocaatteet gaatgtgggaag 12 gacgaatgggg aggtgetgetg statetooctg cagggacaag cgccatteet gaatgtgggg 18 getgtgggaag cagtacacat getetoctgg atogtggaag gacagtteg cogtgaagag 24 ceggaacetee cocaggtgaa catteetgit acettettea cegtgggtgit bgccottata cocagtgaaga 24 cetggcocotte teaccatete etetocotg atcatggaag agaaagacet cggcccaag 360 cetggccoctat taggccacac gugggcococ atgactggate agaagacaca getcatgtce 24 teceggaagg cocteggaag agaagetgtaa gggctccagg tegaactaa catcaggccg 48

gacggcgtgc	ccttcctcat	gcatgacacc	accetgegge	gcaccaccaa	cgtggaggag	540
gagttcccgg	agctggcccg	caggcctgcc	tccatgctta	actggaccac	cctgcagaga	600
ctcaacgctg	gccagtggtt	cctgaagact	gaccccttct	ggacagccag	ctccctgtca	660
ccctccgacc	acagagaggc	ccagaaccag	tecatetgea	gcctggcaga	gctcctggag	720
ctggccaagg	gcaatgccac	actgctgctc	aacctgcgtg	accegeeeeg	ggagcacccc	780
taccgcagca	gttttatcaa	cgtgactctg	gaggccgtgc	tgcactccgg	cttcccccag	840
						900
ttccaacaga	catcaggctc	caaggaggca	gtcgccagcc	tgcggagagg	ccacatccag	960
cggctgaacc	tgcgctacac	tcaggtgtcc	cgccaggagc	tcagggacta	cgcgtcctgg	1020
aacctgagtg	tgaacctcta	cacagtcaac	gcaccgtggc	tcttctccct	gctgtggtgt	1080
gegggggtee	catccgtcac	ctctgacaac	tcccacaccc	tgtcccaggt	gccttccccc	1140
ctctggatca	tgcccccgga	cgagtactgt	ctcatgtggg	tcactgccga	cctggtctcc	1200
ttcaccctca	tegtgggcat	cttcgtgctc	cagaagtggc	gcctgggtgg	catacggagc	1260
tacaaccctg	agcagatcat	gctgagtgct	geggtgegee	ggaccagccg	ggacgtcagc	1320
atcatgaagg	agaagcttat	tttctcagag	atcagcgatg	gtgtagaggt	ctccgatgtg	1380
ctctccgtat	gttcagacaa	cagttatgac	acatatgcca	acagcaccgc	cacccctgtg	1440
ggcccccgag	ggggtggcag	ccacaccaag	accetcatag	agcggagtgg	gcgttagctg	1500
aagacatgtc	tgtcccacct	gtacctgaca	cagaagctgg	ggagcctagg	agagetggtg	1560
gaagtgtgtc	tgaactcgga	gtgctctggg	agcgggctcc	acagcctcct	tgtgggctcc	1620
						1680
ggccaggact	ccatcctttc	agatgcccct	gcaggcctgg	ggctccttct	gggaagtatg	1740
gggcctaggg	cttggtcccc	ctcttctgag	gccctctcct	gtatcccgac	ctggaagctt	1800
tgatgggtca	tgggccatgc	cataccccct	gtggcaatgg	agtgtgtgga	tgctcacctg	1860
						1920
						1980
acaaggaggt	tcagcccagg	aggaagccag	ctgcaatgtg	gagacacgtc	ctcctcccca	2040
acccacctca	tgccaccgcc	aaccccctgc	cccaggagcg	ggcctgagcc	acgtccccta	2100
ggagcagctg	gagatggcca	aaagagtgag	ctcaggacta	ctggatccca	tgcccaggtg	2160
tccagcagac	ctcaaggcag	aagggtcacc	taacccagga	gttccacaga	ctgatgtgac	2220
ctcaggttcc	cacatcagtg	gccaccaggc	agggcccacc	tggtagaagt	gttctggata	2280
tggcccaggg	tgggtgtgtg	gctaagtggg	cctgaacaga	gggaacccta	gggcccttgg	2340
ccaatgtgat	taaagctgcc	atcttg				2366
	gagttccogg ctcaagotg ccclcogace ctcaagotg ccclcogace ctggccaagg taccgcagca caccaggtca tccaacagg taccgcagca ccccgag cggtgaacc acctgagtca tccaggacag tcccgagac tccaggacag tcacctag tcacacctag tcacacctag tcacacctag tcacacctag tgccccgag aagacatgtc ggccaggac tgacaggac tgacaggac tgacaggac tgacaggac tgacaggac tgacaggac tcaaggac tcaaggac tcaaggac tcaaggac tcaaggac tcaaggac tcaaggac tcaaggac tcagagac tcagagac	gagttccoga agctggocg ctcaaegotg gocaftgott ccctcogaca acagagagg ctggcaagg gotatgoca tacogagaa gttttatcaa cacaggitaa bytggotgoc tccaacaga catcaggotac cggcaaga gtttatcaa caccaggita bytggotgoc tccaacaga catcaggota tcaacctagaty byaacctota goggugstc catcogtcac tcctggatca begoccotaa tcatagagg agcagatcat tcaacaccta tgtcagacaa tcatagaag agcagatcat tctccgata tgtcagacaa ggcoccotag gggtggag gagaagttat tgaaccttat tgtcaacacc gagttgtc tgaactoga ggcaggact tggcocagga tcaggocat tgggcatagg tcaggact taggccatgg tcagagact tcagagaga tcagagagat tcagagaga tcagagagat tcagacaga tcagagagt tcagacaga tcagagagt tcagacaga tcagagagt tcagacaga tcagagagt tcagacag tcagagatt cacagagat tcagacaga tcagagatt cacagagat tcagacaga tcagagttc cacagagttc tagaccagt tgggcatagt tgggcaggt tcagacagt tcagacag tcagagttc tagacagat tgggcaggt tgggggggggg	gagticcoga agotgocog cagoctogoc tecaacogtog gocastogot cetpaaqacta cocicogaco acaqaqago caqaqacaa cagocaaga gittitatcaa ogtqactotg tecacagota biggotgoco tagaqacotg tecacagota biggotgoco tagaqagota tecacagota biggotgoco tagaqagota cancotgatga bacatota cacagotoc ancotgagta bacatota cacagotoc ancotgagta bacatota cacagotoc ancotgagta bacatota cacagotoc tecagataca becocoga cocigagaca becocoga cocigagaca tecacagota gagagata bitogagagota cocicoga gagagata tecacagota gagagata tecagotagagota cocicoga gagococtip tegacocotta tegacocota tegacocotta cococota cococota tegacocotta tegacocotta tegacocotta tegacocotta tegacocotta tegacocotta tegacocotta tegacagoco teacocota tegacocota teg	gagttccoga agetggocg oaggectgee tecatgetae tecaacgetg gecagtggt ectgaagaet gaeceettet cectcogace acagagagge cagaaccag tecatctgca teggecaagg geatatgeae actgetgete aacetgeggte tacegeagea gttttateaa ogtgactctg gaggeogtge tecaacaggtae tgtggetgee tagaaggaag gtogcaagee tecaacaggtae tgtggetgee tagaaggaag gtogcaaggee gegggggtee cateogtaeae teagggaggae gtogcaaggee gegggggtee cateogtaea teagggagea tecatgagge tecacetaa tgegceegga cgagtactgt ctatgtggg tecacetae tegtgggaat ottegtgete cagaagtagge tecacetae tgetgggaat ottegtgete dagaagtgge tecacetae tgetgggaat ottegtgete acaaccaga gagaagtaa tttecaagaag geocectga ggggtggaag aagaagtat tttecaagaa acatatggea gaagtatte tgacaccaga gagactat tgetcogaac ggcoccagaa ggggtggaag caacacaaga acacetatga gagagtata bggacatea tegtaggaac gagaactae tgacagaaca gagacatetgaagaagaagaagaagaagaagaagaagaagaagaagaa	gagticcoga agotgocog cagoctogo tecatotta actogaccaco cicaacogota gocatogot ectoaaqaca gaccoctot gagaagocag cictoquaco acagagago cagaaccag tecatotgoa gocatogota tergocaaga gotattateaa estegactot accopacoga tecagocaga gittitateaa estegactot accopacogotgo tecaacagota bytogotaca teagogagoa gocacogogo tecagogaga tecagogaac logoctacac teagogagoa gocacogogo tetitecocogo cactogatoa byaacotta cacagogaago gocacogogo tetitecocogo tectogatoa tegococogo cacagogago tecagogagot tecacotaa tegococogo cocagogago tetitecocogo tectogatoa tegococogo cocagogago tetitecocogo tectogatoa tegococogo cocagogogo tetitecocogo tectogatoa tegococogo cocagogogo gocacogogo tecacocota tegococogo cocagogogo gogacogogo tecacocota tegococogo cocagogogogo tectocogaa gocagotago tecatogogo gocococogo gogatogogo tectocogaa gogatota teticocagoa teticococogo gogacococogo gogacogoco tectogatoa tegococotogo tegocococogo gogacococo tegocococogo gogacococo tegocococo tegococococo tegocococo tegocococococo tegocococo tegocococo tegocococo tegocococo tegocococo tegococococo tegocococo tegococococo tegocococo tegocococo tegocococococo tegocococo tegocococo tegococococo tegocococo tegococococococo tegococococo tegococococo tegococococo tegococococo tegococococo tegococococo tegococococo tegococococo tegococococo tegococococococo tegocococococococo tegocococococococococo tegocococococococococococococococococococ	gacygegtge cettecteat geatgacae accetgege geaceacaa ogtggaggag agattecegg agetgece caggectgee tecatgeta actggacaea getggaggag agetgecegg cettgetaetae tectgaagaea becatetgeta cectecquaea cacagagagae ceagagaaea categetgeta actggagaeagaeagaeagaeagaeagaeagaeagaeagaea

```
<210> 325
<211> 1925
<212> DNA
<213> Homo sapiens
<220>
```

<221> misc_feature <222> (1)...(1925) <223> n = a,t,c or g

<400> 325 ttttttgaaa tctggtccca aagtttcaaa agaatactaa tgcaacaaaa agaaataacc 60 tetetgtata aagtgattat agagatgtgt gttgaggtaa acagetteat aaaaacegtt 120 gagcagggaa gcacagccac tgctatagaa atttttaggt aagtctggtg ctagcattat 180 tctacaaaac tgtttacacc cattataaat aggggacagt tcttattgct cctggagctt 240 gtagetecaa tetgttecag etecaetgaa aaatgatttt teteaacaat tggtageaaa 300 gattteeaaa tttacaaaaa gteattacea atgeateaet ttttgattaa tttetgattg 420 ccatatagat atggactaca gtatgcatgt ccttgacacc aagtacagaa aaaaagctta gaaaagtegt tttatcaaag ttcagttcaa tgagaaacat gaaaaagtgc aaaatatgta 480 caattootgg cagttotcac acqqqatttt tttqactaca gaccataaaa gtttacattt 540 gtgtaatgaa atgacgatgg atttcacatc actgttaata tacaagtttt tgcttcaaag 600 tgettaettt atttataaaa qaqaaqatca aqaqqqttqc aggaattttt tttttttaac 660 720 aacaaatcaa tggtatgtgt cecaatctcc ttcttcctct tcctttagtg caacatggcg

cagcagcete	atggataagg	tetgatttea	aaagacattc	ctgaaacctc	acctacagca	780
gcactctagg	ggtcccatta	ggggtggctc	tetttttett	ctgcagccga	ttctgaacct	840
ttcgagattt	tactactttc	atteteacet	caaaaacttc	atgaatggcc	ttccggaagc	900
aatgaaaatt	atagtcaatt	agcccttttc	tttcaaagct	ttcctctctg	acaaagcaaa	960
cgagagccag	gaactttgtc	acctctttta	aataaagcac	ggttgtatta	ttaagcttta	1020
tgatggctgt	ggattccttg	tcataggggg	tteetgetee	atcttctttg	agaccataaa	1080
tacaagagat	gtcaataacc	acatctatca	tatcacagca	gageteatag	gtttgcatat	1140
ccaccggagt	actatcagtt	gcaatataaa	ttttactgac	cacatcaaat	agaaatgcct	1200
tttcaattcc	agaatttgag	ataaagatgt	tcagcaaatt	ctccagagtt	gggagttgtg	1260
gaatcagttt	ctgaacaact	ttgctaaaag	cttcaaatat	tgaatgatca	tatatgcttg	1320
tcagataaaa	gctgaggtga	attttttcta	atccagcatc	tgcaaggtca	tegtttgece	1380
tctggtgaat	atctctttgg	gtttcaattt	tgtggtcatc	tgacagacca	tccactttat	1440
gaataaacac	ctcgaagttg	atgtcagtat	tcactttgta	ggccctggtc	accgtgaggt	1500
ggagcctggc	cagggcttcc	atgtaatcat	cctgtgagtc	aatgacaaat	atcagtgctc	1560
ctgttccccg	gaagatcatc	tcatagtcaa	atgtagggtc	aaaaaagtca	atctgtcctg	1620
ggaagtccca	aatctgaaaa	ttgacaaagg	agctgttgga	aacatcttcc	cggcatatct	1680
tattagtgct	ctccaagaac	agagtttcgt	tgggagacat	tttgtgaaag	acaactttct	1740
gaatagacga	cttgccgctt	ctcctcaggc	ccatgagcag	gattetegge	ttcacttcag	1800
tgctgaaggg	gtcactgaag	tccagaactc	cctcctctgt	gccgctgtcc	ggatcggcgt	1860
cggaggagtc	gggcccgtct	ccgtagtccg	ctgaattccn	ccgcngtgac	tgagtctcat	1920
tccca						1925

<210> 326

<211> 1181 <212> DNA

<213> Homo sapiens

<400> 326 ttttttttt ttgagattte ecaggactgg etttaatttg aaaaatetga ttggggtete 60 ttcccgtatc agagaaggaa cagcccaagc tatgacccca gggccaggga attcagtccc 120 caccagacco tgtcattcca tcactagggg gtaattccag gctccccctg ccagccctga 180 gacaggagga cggatgtgaa gttgcccagg actagattct gtctctccaa agtggcccaa 240 geoetgitet eigiaetagg gaageeaget gigtetitte gaggaeagit ggiceageea 300 geaggeteag tteagatace agacaaceat teeageacga gggeteageg ecetggeece 360 ggcggtcgct ccagtgcctg tgtgcccacc agcacatcca tgaggtagtc caattcggcc 420 tegtecaget ceggagette etcettgece ggeccatect cagggeetgg tttgaggee 480 tcaqaqqctq qtqcccaaaq ttcattqtca tacataqaqq tqtcaatatc ctcaaacaqq 540 coctcaagoc catogtocag tagacagoca gtggctgggc ccagcaggtc caaggcacco 600 aggetgggeg etgetecece gatgetacgg cetggtggee cetegtetge caagggttgg 660 ggagcctgac teaggecete aatgtggetg aggteeteea ggaggetgge catggagget 720 gaaagggcag cgtccgagct tgccagtaag ttgtcagcca cactgggggc tgcaggtggg 780 ctaggcacag gtggcagggc agccgcgggt gccatggacg cctggatgcg ccgcagagtg 840 ttcacgacca gcaccaggtg ccgcaggtcc ggctcactct gctgcaggct gtggtggagc 900 ttgagcactg agaggtcaaa gagggagcta gaggccacgg ccgggggtgc ctgtgccacc 960 getgegtgge caggatetag ceaccaggag tegaetgeca gaggtteett eteeteetee 1020 tectecegtt tecgetteag accettgete ageatettge teactagegg ecaateagaa 1080 cgaagaggta gccacccaca accaatcagg aaacggcggc ggcagcatcg cttgttggct 1140 gtecteegga aaccegegee tgggtegege ceaegegtee g 1181

<210> 327 <211> 1842

<212> DNA

<213> Homo sapiens

```
<400> 327
aaqtacaaaa taatatttta ataacatagg aacatgaaca tgaaaacaat qtaaacaggt
                                                                     50
tagaattttt ggatatgata cctaccaaac gtgatttgga accgtaccgc aactgggtaa
                                                                     120
aatttctatg gcaaaaggat taaccaaggc atatcatagg aaatccactt tgcccaatat
                                                                    180
aagcagttict cagcacatac tcaaatgcac acaaacatga aaatcggaaa taaaggaatg
                                                                     240
ttaaaaaaat aacttaggca gacacaaata aaaccacccc actagtgtat gaatgatgcc
                                                                    300
acgtttctta tgatcttaat tacatttaag gatttaaaaa atgccactga tctcacagtt
                                                                    360
tacaatatcc aaatettcaa acetgetgga agaagteeca cagcacagec tqqaaattcq
                                                                    420
cateogitige attetetegt geagitacet gettatggge tqtacettet geettgatat
                                                                    480
qtagtcaqtt cttcctgaaq qatqqaaqct ctcttttqca qaaaattaac ctqtqatttt
                                                                    540
agggaggaaa tggtgtcttc aagttcttgt cttagggatg ctggcatcaa tcctttcaat
                                                                    500
tttqtttcat attcttqtcq tatqtaaqtt atctqttcct qtqactccaa ttctttqtqt
                                                                    660
tqtaattttt tctctqcaca tcqcacctqa ttaqaacqqt tttctaattc atcttqtaaa
                                                                    720
acctigating citigateatt atctetaate agetgettet teteatette aaactittet
                                                                    780
ctaacatect ggageeget ttetgeagea agetgetget ggetgttete ttetnteaga
                                                                    840
gaggaaatgg tigtotgaag ttotgotatg atotgtqaag atttgqcaag cttotgagtg
                                                                    900
tatteettet caatetgett cagettgetg ttggeetttt ccagtgteat etetgtetea
                                                                    960
gragratgag totttttcag ototattttc atottttctq attragectt cagtttattq
                                                                   1020
acgacaatet catqtteeet tqtaqeeett tqctttteet etteacqaaq aaqaccaaqe
totaccaget getgtttccg etgtgagtte acattgatea attettetet caacttgtga
                                                                   1140
acctgggcct ccatgtcggc aataacctgt gcatctcgtt tcttgaactc ctgaatttga
                                                                   1200
ttttcqtqct ccatattqqc aqcqcqaaqc tqtttttcca qqttttcaat ttcccqttca
                                                                   1260
tggtetegga ctaggetate ettetetgeg ttatgetget gtaataggtg egtettetee
                                                                   1320
tottcatoct ccaocttcao ctctactate tottottcat accoctotet catotectec
                                                                   1380
agttqccata aaaactcctt tgattgtttc tcacgaagag atttggatct agttagatct
                                                                   1440
gcctccactt tttccatttc aaagcttcct caaatttatg aattttcttt tgagtatctt
                                                                   1500
ottttocttt atcaagttca ctctgcaagt catgagcctt tttttcatag atgtgtttta
                                                                   1560
gatgactttt ctccatctga aacttatttt cttgatccct tagttgttgc tttctttgaa
                                                                   1620
gttetgatte etgtaactge tgttttaatt gacagacatt etgetetaat tetteaatea
                                                                   1680
tactagatgc cttagaagct gaaagagcat gttcttgttt tagaaggttt atatcagcat
                                                                   1740 -
catatttggt ttgtaacagt ttcatgtttt gctcataatc atttacaaga tggtccttct
                                                                   1800
ctttatgcag tgtgttacgc cttgccttta cttcttgtaa tt
                                                                   1842
```

```
<210> 328

<211> 1293

<212> DNA

<213> Homo sapiens

<220>

<221> misc_feature

<222> (1)...(1293)

<223> n = a,t,c or q
```

4400> 328

tttttttttt tttacgoggg gagagattta atttacatag cagccacttg gggtccagtc 6
agagctgggg cagtgggga atctataacc ccagagggta cccccacagac ccccacccc 120
gggagaccag tcctacacaa cccttggatg ggctcccaag gttgtgcaga agastgctca aggccacagac atagagcatt tgggaataaa aggctgtccc caaagttggg gggaangtcc 240
acggcctggg agtggatagc ctacatggtg gcccagaggg gtctgagaga ccagtcccat 310
gtccctgggg sagtccttca gcctggagga cacqcccqqqqqqaaaa 360

tgttccctgg	aggagggcgc	ggtactggtc	aaaatccttc	ctttccacac	gggtgacgcc	420
geetteetta	gcatacccac	aacttcccgg	cacaccagcc	ttgataaagc	gcttcattcg	480
tgggacacca	gaatcacacc	aacccctgaa	attgtttgaa	ggcaaggccc	cagagcetea	540
atggctctcc	catgtccaag	gtgggtttgt	gggttcatcc	cagaatgtag	aaagttgggg	600
cagggcaata	gtccatctga	gcaaaaggcc	acttcggctt	ctttctggcc	cccaagacag	660
gctggcaaag	aggacgcatg	gcccagttct	ccggagatgc	ccataccgaa	cccaagetgg	720
tgacnggtac	tcctcctcag	gccgccccag	gaaaacttgc	gtgcccagca	agttcccaca	780
agcactgaac	gtttaggtcc	cagctgctcc	cacatggtgc	tggctgaaat	agccaatctt	840
cagattcctg	tgagcgtgtc	tgatgccccg	aacaggtgcc	aggtccccca	aaagcagctt	900
cagcatggta	gacttcccag	ccccattctc	tccaaccaca	cagatgcgag	actcgagatc	960
agcagacaca	gagaggcgac	tgaagatgac	gtgcttcgga	tcgtagtaga	aatccacctc	1020
	agaattggcg					1080
ctctgattcc	ttgtccacag	gcttcagctc	aggcctggga	gaagagatga	ggtagactag	1140
atttattact	taaaaaaata	acttcctaca	cgagtaatat	atgttcagag	aaaacttaga	1200
aagggcttgt	actcctacca	ctcaggtatc	attactttag	agtccattct	tctcatttac	1260
tgtatgctaa	aaaatagaat	taggcttttt	gtg			1293

<210> 329

<211> 1734

<400> 329

<212> DNA

<213> Homo sapiens

aaatttgtat ttcgataacc attagtgcag tgcggtggaa gtcaagatgg cggcgcggac 60 agogttoggt gotgtgtgcc ggcgcctctg gcagggattg gggaattttt ctgtaaacac 120 ttctaagggc aatacagcca aaaatggtgg cttgcttctc agtaccaata tgaagtgggt 180 acagttttca aacctacacg ttgatgttcc aaaggatttg accaaacctg tggtaacaat 240 ctctgatgaa ccagacatat tatataagcg cctctcggtt ttggtgaaag gtcacqataa 300 ggctgtattg gacagttatg aatattttgc tgtgcttgct gctaaagaac ttggtatctc 360 tattaaagta catgaacctc caaggaaaat agagcgattt actcttctcc aatcagtgca 420 tatttacaag aagcacagag ttcagtatga aatgagaaca ctttacagat gtttagagtt 480 agaacatcta actggaagca cagcagatgt ctacttggaa tatattcagc gaaacttacc 540 tgaaggggtt gccatggaag taacaaagtt ttgtttcttt atttttttag acacaattag 600 aacagttacc agaacacatc aaggagccaa tetgggaaac actatcagaa gaaaaagaag 660 aaagcaagtc ataaagcctc agggaggcca tttttgccta aatttgaaat gagggtgggc 720 cagatgagta tgtttaagtg gagagtgctt ccagctgaga tgatttgagt ctgtcctaac 780 tgctccattg agttctcgtg ccctcatcag ctgagggcag ggaatggaac tttaatggaa 840 gaaccacttt tatctattct ttttattcat tgtttcagtt ctgatttcag caaacatgag 900 caaaccactt tgactgaaag cagaaagagt gaaaattcta ttttgttacg ctactggtgt 960 tcaattatta gtttgtacca tttttaattt atgtcagttg atgcatctga aaataagtgc 1020 ttggagtgtt cgtaccctta tttttttta agattcctag aaggaatctt tggttaattc 1080 agattgagca gttaaagttt ttgctattta cctttgtgca ggctggcata tgctaatttg 1140 ggggtggtaa ccaaccgatt ttatctcatg taagcattac attttgaaga ctgaatatac ttcacagcag atcaaacaca tttatggcat gcactgacct cttcttggag cccagaactt 1260 tatagagttg cctaccaggg ttactgtaat ggaatttatg atcttaagaa attactagtt 1320 gtattattta tcctatgatt cattcattca ataagetttt actgcataaa ctttacatce 1380 agcactgtag ttaagtaccc aaaattgaat agaaataatg gcttttgaaa attgcacaaa 1440 gcaggccagg cacggtggct cacgcctgta atcccagcac tttgggaggc cgaggcaggc 1500

ggatcacgag gtcaagagat ccagaccatc ctggctaaca cggtgaaacc ccgtctctaa

taaaaataca aaaattaget ggacatggtg geacqtgeet gtaateecag etacteaqga

gegecactge actocageet ggegacagag egagacaceg tetcaaaaaa aaaa

ggctgaggca ggagaatcgc gtgaacccgg gcccggtgga ggctgcagtg agacgagatc

1560

1620

1680

1734

```
<210> 330
<211> 2105
<212> DNA
<213> Homo sapiens
```

<400> 330 ttttttttt ttatgtcatt cagcotttac tgtaaaaaag gaaacaataa aaacaaaacc ctattaataa acacaatgca aacaatgccc gagattatca taaaaacata ctagcaagcc 120 acaagtacca gagaggggg aacaggcata tetgetaget etcetettge agteetcage 180 ctcccacagg aggcacaagg tccaaactat tcctcaaaaa aaaggacagc ctctttatgc 240 tgaaatagga actttaaagg aagctottot tgtagtocaa atggacgtac ottgtggtat 300 ggctgtaagg actogatttt acggcttgtg tattcctaac tatagctagg cctgtcacct 360 getgtteetg tgateteage tttacetaga agageteetg aaacagaatg ggtacacgaa 420 aatotggaat gaatagotat otgotcaaaa acgattgttt aaaaacagat gattggggco 480 gggcgcggtg gctcatgcct gtaatcccag cactttggga ggccgaggcg ggcggatcac 540 gaggtgagga gatcgagacc atcctgggca acatggtgaa accccgtctc tactaaaaat 600 acaaaaatta gctgggcgtg gtgatgccag ccactcggga ggctgaggca ggagaatcgt 660 ttgaaccagg gagtcagagg ttgcagcgag ccgagactgc gccactgcac tccagcctgg 720 cgacagagcg agactccgtc tcagaacgaa caaagaaaca aacaaaccag atgactggga 780 gactgaagag gaaaaaagat gggagaaaac gtagggaaag gatggggcct cacagactca 840 getgtgggtg ggggggtaaa teattacete aggagaagee caaggaattg teccegaggt 900 gagotttgga aagaaaacaa aaacaaaaac aaaaacacca aaaaacacct aaatttcctg 960 tattaaagtg acacataatc atgttttctg attctcttca ctgtctgcct gcggggaggg 1020 ggtggggaag gtgttaatga tgctgatccc tacttctgct tcaaggagat ctggtgggga 1080 attettecae cagtecagag tttgetggtg etgaceteat ceetgtatea egggeetaga 1140 atgtgggagg ctaataggat gggtgggttg caggaggtag aagaggggat ggcctagaga 1200 1260 cacccetage eccageeect eagetgtggg gagaggeeac etcetetgat ggggtetega 1320 tgctgctgct ctgttcctgg tctggcacgt cctcctcttc ctgctccaag ctgaagttct 1380 egageteetg aaaaatetea teeatgaagt eetgggagtt etgtttgtaa gacacageta 1440 ategaattge ateattgaag agetteacaa cattggtace ateageagee gagaegaaat 1500 acaggggcag ggagaacttc ttggcaaaat tgaagetttt ttgggtcaeg tttatgtctg ctgtagagag aaggtaggac attggtctgt ctgtcaaggg aagggaagaa ggtttqgaqq 1620 ggggggccac tggaggcctt cattccagaa agtgggatag gcagggatga ttgggaaaca 1680 ggtcctagaa agagctcagt taatagggat ctqtqtcttq qaaaqaqqqc aqqtcqqctt 1740 agetggette tttataaggt gggaagaatg caagcaacca accaagggtt gtatettate 1800 gtgggaggga ggaccaatca ctgaaggttg cctgcccggg gaatggagga ggaaatgtat 1860 gagggcaggt ccccagtgaa ttgctaacac ccaggtgcag ggatggcccc accatcaatt 1920 ttattggcca ccacgatgca tgggatctct ggcctgaact cccgaagetc tgtataccag 1980 gtgctcaggt tcctatgggt gactttcctc tggacatcaa acaccatgat gcaagcgtgg 2040 gtcttgtggt agtaggaggc atgcatgctc tggaaccgtt cctggcctgc cgtgtcccaa 2100 aagtc 2105

```
<210> 331
```

<400> 331

ggagcgacgc cgctcgggtc agtcggcggc cggactggga agatggacgc agctactctg 60 acctacgaca ctctccggtt tgctgagttt gaagattttc ctgagacctc agageccgtt

<211> 5654

<212> DNA

<213> Homo sapiens

tggatactgg	gtagaaaata	cagcattttc	acagaaaagg	acgagatett	gtctgatgtg	180
gcatctagac	tttggtttac	atacaggaaa	aactttccag	ccattggggg	gacaggcccc	240
acctcggaca	caggctgggg	ctgcatgctg	cggtgtggac	agatgatett	tgcccaagcc	300
				aaaggaagag		360
				acagttacta		420
				gccagtggta		480
actgtcgccc	aggtcctgaa	gaagcttgct	gtcttcgata	cgtggagctc	cttggcggtc	540
				gaaggttgtg		600
				accggcactg		660
				gacccctggt		720
				tggagacgct		. 780
				cccaacagcg		840
				cccacaccac		900
				tccactgcca		960
				tggtacgtgg		1020
				cgaggaaaac		1080
				cacgtggttg		1140
				cctccccag		1200
				gtgtctggat		1260
				ggtgagtgtg		1320
				tgcaccacct		1380
gaggetetga	cacgggcggc	eterreret	testages	gcaccacctt	ttgtttteeg	1440
				gagetteeet		1500 1560
				agacctgcct tcatgaatga		1620
				atgeteegee		1680
				agetgtggeg		1.740
gracacacca	cactccatac	acctcctggg	caggacacag	gtagtgggga	agetgaggta	1800
gagetetata	actcacactt	tttatttatt	tatttattt	tgagacggag	teteseteta	1860
				gcaagctccg		1920
				ctacaggcac		1980
				cactgtgtta		2040
tettgatete	ctgacctcat	gatccaccca	cctcaacctc	ccaaagtgct	gggattacag	2100
				agaacctagt		2160
				agettggtgg		2220
				ccgcagacag		2280
				gataactqtc		2340
aggaggagga	atgtcccctg	tccccggggg	agagtgctcc	tacaccagcg	ccgaggcggc	2400
				ttctccccc		2460
				tcctagtgac		2520
ggcggcagct	ttaaggatgt	gattgccggt	gacccttggc	cggtcccctg	tctcctggct	2580
cctcagcagg	aggeteeetg	tgtcacggtg	tccttgggca	gttctcggtg	gcctttgccg	2640
ccaagcttcc	agggagctgc	tgggcgaagg	ctgagaccca	gcggccctgt	ctcacagtca	2700
cagagagaag	agctccccac	ttggccctaa	ctcataacct	gccccaatcc	cggaacactc	2760
ggtgaggttt	gagagatgca	caccacgtaa	catctcgtgg	gcgaatcaag	gcacagcaac	2820
				ccatgcacag		2880
				tgtccagcac		2940
ggggcctctg	ctgcgccact	ggcagtggga	atggaagccc	ccacctctta	tecgaetgea	3000
				ggggttttc		3060
aagatgactt	cagtgattgg	tgccagcaag	tcaaaaagct	gtctctgctt	ggaggtgccc	3120
tgcccatgtt	tgagctggtg	gagcagcagc	cttcacatct	ggcctgcccc	gacgtcctga	3180
				cctcggaggt		3240
				taaggtgtgt		3300
				atggagtgga		3360
				tccccaccag		3420
				aggggtctgg		3480
				tggttcactt		3540
				gccgcaggag		3600
				atctctgtct		3660
				tgaccacgag		3720
yygacagagg	cccetcagge	ctgagattgt	gccggccgcc	ccctgccctc	ctcaccctgc	3780
				tctgcacaac		3840
				gcaggcactg		3900
cccacgccaa	aaacccccaa	ccacaccca	ggcggccac	ccaagatgcc	tgatgegeta	3960

tgtcctgttc	cttctagatt	cttctgatgt	agagcgactg	gaaagattct	togactcaga	4020
agatgaagac	tttgaaatcc	tgtccctttg	aaaatcctgg	ggtcgggggt	ggcacctgtg	4080
agagcctggg	gctcctggtg	ccgctgcgtt	tcatccatcc	cgcccgctcg	cctgccgagg	4140
getgegeece	gtgctgcctc	ccccagagg	gccacccgct	gtgctcgtgg	actgaggetg	4200
cgctgcccgg	gaggccttac	tgcttggtgt	cagactgccc	agctcagagt	gcccgtcagg	4260
gcctgtgcat	ccgcacgcgg	agccgtctgt	taggagette	cagagcgttc	tctcgacact	4320
gccagccccg	tgttagcacc	tgggcctcag	tcccacttgc	tcccaggcgc	cggttctgtg	4380
gttggtttgg	aattaaagtc	ctgtttgaag	ttgtcagaca	cagacatgaa	tttctggggc	4440
gctccctgag	tcagtctcag	aagacctgtg	caggetggeg	tgagaggagc	ggcagccaca	4500
ctgcggcccc	acgcccaagg	actgggctgc	tetegagggg	ggcgcgccca	ccgctgtgtc	4560
ctctctgccc	agcctggctt	accaagggct	acctcagtgg	gagatgaggt	tggaggaacg	4620
aaggcgaggt	tectecttge	tttggggaga	aaagtattca	ggaagtgggt	gtgtgggaaa	4680
cctgaagatg	gcgtgcacag	gacacagcgt	ggtcggcctg	ggcagaaggg	eggetggetg	4740
tcctggagct	gctgctggag	cctgccctca	gagtgtccct	ttccagtgct	gtggcattct	4800
gtggcagctt	ccccaggtgt	ggtgacgggg	aaaaaacaaa	gcctccacct	gtgacagcca	4860
ggcttgaggg	tggacggcgt	gectetecca	ggagcettee	ccatgtcctt	gccttgctga	4920
gaattgccct	cccatgccgc	tgaggtgtta	ggtggtttag	ggccaaaagg	ggaaaaccac	4980
ttgagtcttg	tggtgtgtgg	tgggcagaca	ccacagggtg	gcatcacctg	gtggcatttc	5040
cagaacctca	gccccgattc	cagcacccac	cacegcctga	ccctgtgtaa	ectgetgtee	5100
cgggtcccag	agtgcactct	gccccactgc	tetgetgeet	gtcctgggaa	agtagetttg	5160
ccccactagg	aaatgtaaac	aggagggctt	ggggagcgtg	ggcacttttc	tcatgagcag	5220
ctactgcggc	gttggcagga	ctcgctgctg	ctgctgctgc	tgcttgtgta	ggtcggggag	5280
ccggagatcc	cegaggaege	gcgccggaca	gtcggcactg	accggcccab	ctggtagcag	5340
aggacacccc	cagcccccca	agcattgaag	acatagtgta	tttcctcgta	teetttetee	5400
cttgggtgta	gttggggtgg	ggaagcaggg	aaggetggtg	cgatctccat	teettggget	5460
ccgcgtccga	gttcatggtg	cgccgctgtg	ctgggagctg	cagtgggaat	gtgtgggaca	5520
ccttgaccaa	aggggagctt	tgtctcgtgt	gttttgaaaa	aggettaatg	aagagaatgt	5580
tgttcattct	tagtagtata	gtttgcaatt	cttaatggca	aataataagt	ttcagtagaa	5640
acccaaaaaa	aaaa					5654

<210> 332 <211> 283 <212> DNA

<213> Homo sapiens

<400> 332

ggagcaceg egococcege caaatttaga ettittgage tetgtegtt gtgeetttea 60 acacttitea caatggatt tetgeettet gataaggaag geacectga teetgteatg 120 gatteattta geacacgattg geocacgata ggeettegt acatgtitt teattgtag 180 acagcattat aagaactta aateteacgg eacaaacece tegaagtetg tetgggeaca 240 tegeacaatge caatettgtg ectiteceaa ectlettgtg teg

146

<210> 333 <211> 1759

<212> DNA

<213> Homo sapiens

<400> 333

	gcggaattcg					60
	ggtgggccac					120
ggaggatgat	ccgcaccgct	gtgtggacac	agatgagtgc	cagattgccg	gtgtgtgcca	180
gcagatgtgt	gtcaactacg	ttggtggctt	cgagtgttat	tgtagcgagg	gacatgagct	240
	ggcatcagct					300
	gagttgctgg					360
ggccttcaac	ggtggctgga	cggagatgcc	tgggatcctg	tggatggagc	ctacgcagcc	420
gcctgacttt	gccctggcct	atagaccgag	cttcccagag	gacagagagc	cacagatacc	480
ctacccggag	cccacctggc	cacccccgct	cagtgccccc	agggtcccct	accactcctc	540
	gtcacccggc					600
ccaccagect	cctgtgatcc	ctgccacaca	cccagctttg	tcccgtgacc	accagatece	660
cgtgatcgca	gccaactatc	cagatetgee	ttctgcctac	caacccggta	ttctctctgt	720
	gcacagcctc					780
	gcccaccagt					840
caccactcat	ttgcctggaa	tcccacctaa	ccatgcccct	ctggtcacca	ccctcggtgc	900
ccagctaccc	cctcaagccc	cagatgccct	tgtcctcaga	acccaggcca	cccagcttcc	960
	actgcccagc					1020
ccatcaaatc	tctgtgcctg	ctgccaccca	gcccgcagcc	ctccccaccc	tectgecete	1080
tcagagcccc	actaaccaga	cctcacccat	cagccctaca	catccccatt	ccaaagcccc	1140
	agggaagatg					1200
	gccccaacag					1260
tgaccggtgg	ctgctggtgg	cactcctggt	gccaacgtgt	gtctttttgg	tggtcctgct	1320
tgcactgggc	atcgtgtact	gcacccgctg	tggcccccat	gcacccaaca	agcgcatcac	1380
tgactgctat	cgctgggtca	tccatgctgg	gagcaagagc	ccaacagaac	ccatgccccc	1440
	ctcacagggg					1500
	gtatggggcg					1560
	ggacagatgg					1620
actagacttg	gctctcagga	actctgcttc	ctggcccagc	gctcgtgacc	aaggatacac	1680
	aagacctcag	ggggcgggtg	ctggggtctt	ctccaataaa	tggggtgtca	1740
accttaccca	aaaaaaaaa					1759

<210> 334 <211> 2852 <212> DNA <213> Homo sapiens

<400> 334

ctacgagtac gtcggcgccc gcacctcccc gcaccgcccg cgctgcgcgc ccggaggagc gaccgccgca gttctcgagc tccagctgca ttccctccgc gtccgcccca cgcttctccc 120 geteegggee cegeaatgge ceaggeagtg tggtegegee teggeegeat cetetggett 180 geetgeetee tgeeetggge eeeggcaggg gtggeegcag geetgtatga acteaatete 240 accacegata gecetgecae caegggageg gtggtgacea teteggecag cetggtggee 300 aaggacaacg gcagcctggc cctgcccgct gacgcccacc tctaccgctt ccactggatc 360 cacaccccgc tggtgcttac tggcaagatg gagaagggtc tcaqctccac catccqtgtt 420 gtcggccacg tgcccgggga attcccggtc tctgtctggg tcactgccgc tgactgctgg 480 atgtgccagc ctgtggccag gggctttgtg gtcctcccca tcacagagtt cctcgtgggg 540 gaccttgttg tcacccagaa cacttcccta cectggecca getectatet cactaagace 600 gteetgaaag teteetteet eetecacgae eegageaact teeteaagae egeettgttt 660 ctctacagct gggacttcgg ggacgggacc cagatggtga ctgaagactc cgtggtctat 720 tataactatt ccatcatcgg gaccttcacc gtgaagctca aagtggtggc ggagtgggaa 780 gaggtggagc cggatgccac gagggctgtg aagcagaaga ccggggactt ctccgcctcg 840 ctgaagctgc aggaaaccct tcgaggcatc caagtgttgg ggcccaccct aattcagacc 900 ttccaaaaga tgaccgtgac cttgaacttc ctggggagcc ctcctctgac tgtgtgctgg 960 egteteaage etgagtgeet eeegetggag gaaggggagt geeaceetgt gteegtggee ageacagegt acaacetgae ecacacette agggaceetg gggactaetg etteageate 1080 cgggccgaga atatcatcag caagacacat cagtaccaca agatccaggt gtggcctcc

agaatccagc	cggctgtctt	tgctttccca	tgtgctacac	ttatcactgt	gatgttggcc	1200
ttcatcatgt	acatgaccct	gcggaatgcc	actcagcaaa	aggacatggt	ggagaacccg	1260
gagecaccet	ctggggtcag	gtgctgctgc	cagatgtgct	gtgggccttt	cttgctggag	1320
actccatctg	agtacctgga	aattgttcgt	gagaaccacg	ggctgctccc	gcccctctat	1380
aagtetgtca	aaacttacac	cgtgtgagca	ctcccctcc	ccaccccatc	tcagtgttaa	1440
ctgactgctg	acttggagtt	tecagcaggg	tggtgtgcac	cactgaccag	gaggggttca	1500
tttgcgtggg	gctgttggcc	tggatcatcc	atccatctgt	acagttcagc	cactgccaca	1560
agcccctccc	tctctgtcac	ccctgacccc	agccattcac	ccatctgtac	agtccagcca	1620
ctgacataag	ccccactcgg	ttaccacccc	cttgaccccc	tacctttgaa	gaggcttcgt	1680
gcaggacttt	gatgcttggg	gtgttccgtg	ttgactccca	ggtgggcctg	gctgcccact	1740
gcccattcct	ctcatattgg	cacatctgct	gtccattggg	ggttctcagt	ttcctcccc	1800
agacagccct	acctgtgcca	gagagetaga	aagaaggtca	taaagggtta	aaaatccata	1860
actaaaggtt	gtacacatag	atgggcacac	tcacagagag	aagtgtgcat	gtacacacac	1920
cacacacaca	cacacacaca	cacacagaga	aatataaaca	catgcgtcac	atgggcattt	1980
cagatgatca	gctctgtatc	tggttaagtc	ggttgctggg	atgcaccctg	cactagaget	2040
gaaaggaaat	ttgacctcca	agcagccctg	acaggttctg	ggcccgggcc	ctccctttgt	2100
gctttgtctc	tgcagttctt	gcgcccttta	taaggccatc	ctagtccctg	ctggctggca	2160
gggggctgga	tggggggcag	gactaatact	gagtgattgc	agagtgcttt	ataaatatca	2220
ccttatttta	tcgaaaccca	tetgtgaaac	tttcactgag	gaaaaggcct	tgcagcggta	2280
gaagaggttg	agtcaaggcc	gggcgcggtg	gctcacgcct	gtaatcccag	cactttggga	2340
ggccgaggcg	ggtggatcac	gagatcagga	gatcgagacc	accctggcta	acacggtgaa	2400
accccgtctc	tactaaaaaa	atacaaaaag	ttagccgggc	gtggtggtgg	gtgcctgtag	2460
teccagetae	tcgggaggct	gaggcaggag	aatggtgcga	acccgggagg	cggagcttgc	2520
agtgagccca	gatggcgcca	ctgcactcca	gcctgagtga	cagagcgaga	ctctgtctcc	2580
aaaaaaaaa	aggccgggcg	cggtggctca	cgcttgtaat	cccagcactt	tgggaggccg	2640
aggcgggcgg	atcacgaggt	caggagatcg	agaccatcct	ggctaacacg	gtgaaacccc	2700
	aaaatacaaa					2760
tctactcggg	aggctgaggc	aggagaatgg	cgtgaacccg	ggaggtggag	gttgcagtga	2820
gccgagattg	cgccactgca	ctcccgcctg	aa			2852

<210> 335

<211> 865 <212> DNA

<213> Homo sapiens

valor nomo bapion

<400> 335 gtcgtggaat tcgccttcca gctgtcttct gtgagtgtct gcctgacagt ttcctttggc tggcagctag gcactgtgtc ttcctgtctc tctagggact ggttcttgaa gggaaacctc 120 ctcatcatca togtcagtgt gttaatcatc etgeceeteg ccetcatgaa acaettggge 180 tacetggggt acaccagtgg tetetetetg acctgcatge tgttttteet tgttteggte 240 atctacaaga agttccaact tggctgtgct ataggccaca atgaaacagc aatggagagt 300 gaageteteg tgggaeteee cagecaagga etcaacagea getgtgagge ceagatgtte 360 acagttgact cacagatgtc ctacacagtg cccattatgg cttttgcttt tgtctgccac 420 cetgaggtge tgeccateta taeggagete tgeeggeeet ecaagegeag gatgeaggee 480 gtggccaacg tgtccattgg ggccatgttc tgcatgtatg ggctcacagc aacctttgga 540 tacctcacct tctacagcag tgtgaaggeg gagatgctgc acatgtacag ccagaaggac 600 cegetcatec tetgtgtgeg cetqqccqtq etqeteqeqq qtqacectca etqtqccagt 660 cgtgctgttc cctatccqcc qgqccctgca qcaqctqctt ttcccaqqca aqqccttcag 720 ctggccacga catgtggcca tagctctgat cctgcttgtt ttggtcaatg tccttgtcat 780 ctqtqtqcca accatcqqq atatctttqq aqttatcqqq tccacctcaq ccccaqcct 840 catcttcatc ctccccagct gtatt 865

```
<210> 336
<211> 1126
<212> DNA
<213> Homo sapiens
```

<400> 336 gtggegeegg gaqcaaaagc agcatgatgc agctcatgca cetggagtec ttttatgaaa 60 aaaceteete etgggettat caaggaagat qacactaage caqaagactg cataccagat gtaccaggca atgaacatgc cagggaattt ctggctcaca caccaactaa aggactttgg atgccactgg agaaagaagt caaagttaag cacttacttt tcattggatt gcttcataat ttottggtga tggaaaatto attoctaaag caacaagatt aaaggatgtt tgggtaagca attagtttac ctgtcttttc tgggacctta cacggttcat ccatgattgc attttctttt agaattggag tttaatgaat aaaaacttta atataatcta ctgattcttt atctcactaa 420 ggtgaaacac tettatetta cagaaatatt teeeetttte tttgetttta ggttggeatt 480 gcaaatggta eggtcacega acaggctaca aagaatgeec tttctttate aaagacaace 540 aaaagttaca acagttcaga gtagcacatg aggatttcat gtatgacatc atacgagaca 600 ataaacaaca tgaaaagaat gtaaggatac agcagttaaa acagttactg gaggattota 660 cctcaggtga agataggagc agctccagtt cctctgaagg taaagagaaa cacaagaaaa 720 780 agcacaaatc ttccaagtca aatgagggtt ctgactcaga gtgacaagga tgtgacttgt 840 900 tcaacattct cttctcaaac actgaccaag gaacagagga agatgcagtc agagaaagca geaggataga gaegeegaga gaggagtata tgtgggteae ageagtgage teccaccege 960 cttgcagtga agatgtgacc ccaggagagg gagtgtctcc ttccaggtgc tagctctgga 1020 cagcagotga ttttaggcag gaaagtttet teategttgt ceteeetget ggteacatga 1080 gtttacgatt cctttgaagt gtctcccaca gggtggcagg actggg 1126

```
<210> 337
<211> 4280
<212> DNA
<213> Homo sapiens
<220>
<221> misc_feature
<222> (1) ... (4280)
<223> n = a,t,c or g
```

<400> 337 aagaaattgc aggtgctgca gcagagaaca tgttaggcag tttgctgtgc ctcccaggtt 60 cagggtcagt gettettgac ceetgeactg gttetaceat atcagagaca acaagtgaag 120 180 ettggagtgt agaggtattg ccaagtgact cagaggcccc agacctaaag caggaggagc gtetgeaaga aetggagage tgttetggae tgggtageae atetgatgat aeggatgtea 240 gggaggtcag ttcccgccc agcacaccag gcctcagtgt tgtqtccggc ataagtgcaa 300 cctctgagga tattcccaat aagattgaag acctgagatc tgagtgcagc tctgattttg 360 ggggtaaaga ttctqtcact aqtccaqaca tqqatqaaat aactcacqat tttctttata 420 tacttcagcc aaaacaacat tttcaacaca ttgaagcaga agcagacatg agaatccagc 480 totettotag toccaccag etgacetete eteettetea gteagagtet etgetogeea 540 tgtttgatcc actgtcttca catgaagggg cttctgctgt ggtaaggcca aaggttcact 600 atgotaggec ategoateca ecaccagate ecceaatect ggaaggaget gtgggaggaa 660 atgaggccag gttgccaaac tttggttccc ccatgtttta actcccagct gaaatggagg 720 cattcaagca aaggcattcc ttacccctga gagactagtt cgaagcagga gctctgaata 780 tagtatette tgteeggaga eccatgagtg acceeagetg gaaceggegt eccaggaaat 840 gaagagegag aactecetee agetgeagee attggtgeta ettetttggt ggetgeacet 900

	cttcatcccc					960
	atgagaaatc					1020
	aagctcctat					1080
	ctgacagatt					1140
	tggctgagga					1200
	gagcaatggc					1260
	ctccccgtga					1320
	aagcagccca					1380
	ttgctctttg					1440
	ggtttaccag					1500
	atagctgaag					1560
	cgctgtgtgt					1620
	gactacagaa					1680
aggactacag	accacacagg	ctcacctgga	aaggctattg	caaagagttt	tgcgggacaa	1740
agaagtggcc	aatcgatact	ttaccactgt	ctgtgtgaga	ttactgcttg	agagcaaaga	1800
aaagaagatc	agggaattca	ttcaagactt	tcagaaactc	accgcagctg	acgataaaac	1860
tgctcaggta	gaagattttc	tgcagtttct	ttatggtgca	atggcccagg	atgtcatatg	1920
gcaaaacgcg	agtgaagaac	agcttcaaga	tgcacagctg	gccattgagc	gaagcgtgat	1980
gaaccggatt	ttcaagctcg	ccttctaccc	taatcaagat	ggggacatac	ttcgcgacca	2040
ggttcttcat	gaacatatcc	agagattgtc	taaagtagtg	actgcaaatc	acagagetet	2100
tcagatacca	gaggtttatc	ttcgagaagc	accatggcca	tctgcacaat	cagaaatcag	2160
gacaataagt	gcttataaaa	cccccggga	caaagtgcag	tgcatcctga	gaatgtgctc	2220
tacgattatg	aacctcctga	gcctggccaa	tgaggactct	gtccctggag	cggatgactt	2280
tgttcctgtg	ttggtgtttg	tgttgataaa	ggcaaatcca	ccctgtttgc	tgtctactgt	2340
gcagtatatc	agtagetttt	atgctagctg	tetgtetgga	gaggagtcct	attggtggat	2400
	gcagcagtag					2460
aaggcccacc	aaggcagcag	actgttaatc	agacaaacag	atctctgaga	aggtgcatca	2520
	aggctgaaga					2580
cagatetta	ctaaacaggt	taatgagcta	acaagcaggt	tetetegtet	ttgggctctt	2640
	gttgcatatt					2700
	ttttcaagta					2760
	tecattettg					2820
ccctctttta	agatgetgte	ttacattaat	gagcatctaa	tggaaagaag	gtatgagttg	2880
	tagaatagtg					2940
tgaaaqctaa	gaaggaaatg	taaatataat	atatatttat	atttgatgta	atatggacat	3000
	taataaacaa					3060
	cttgacaaaa					3120
	ttaaaatgta					3180
	tttaatgagt					3240
	tgcattagga					3300
	actttatggt					3360
	ttacaaacct					3420
	gaattcagtg					3480
	gttttactag					3540
	ttttggcagg					3600
	tttggtttgc					3660
	gccatggagg					3720
	tttcacttcg					3780
	cttgagtccc					3840
	gcctcgggca					3900
	gaatgcctaa					3960
	gagacagagt					4020
	caacctccac					4080
	tacaggcgca					4140
	tttcaccatg					4200
	ttngggcttc					4260
	taggattttt		222000000			4280
J Luguado						-200

<210> 338 <211> 1796

<212> DNA <213> Homo sapiens

<400> 338 tggccatctt tactgtgggc tgaagcctgt gcgcttactc gcgcatgtgc aagccttccc 60 tegettteet ettecaagta geettgeeta gageggagee teeegegeea tttetgtgeg 120 cctgcgtagc gtgaccctgc gcagcctggg aggcgggtct tagctccagg tgcgtacggc 180 atotgacttg acgtggccca caactgaaag gtctggggag aaggcgccgt gtccgggtgt 240 ggagagggc gtcgtggaag cgagaagagt ggcccgtccc tctcctccc ctttccctct 300 ttoggaaagt ggtttotgog gggccoggga gcctoggagt accqaacctc qatetecqqq 360 geggggteet tggtggggae tgagegeece eteeegggga egggeggtet ggeegeggag 420 teceetgegg gagegtgatt ggetggaaae ggteeegaae eeceagggga geeegateee 480 tgggggaccc tggcttcgga ctccagtatc tgtcgtcgca gggtccctgc cctagtggcc 540 tatgtccctt gctcggggcc atggagacac tgcggccagt acggcggcgc ctctgtctga 600 agaaggggaa gtgacctccg gcctccaggc tctggccgtg gaggataccg gaggcccctc 660 tgcctcggcc ggtaaggccg aggacgaggg ggaaggaggc cgagaggaga ccgagcgtga 720 ggggtccggg ggcgaggagg cgcagggaga agtccccagc gctgggggag aagagcctgc 780 cgaggaggac teegaggaet ggtgegtgee etgeagegae gaggaggtgg agetgeetge 840 ggatgggcag ccctggatgc ccccgccctc cgaaatccag cggctctatg aactgctggc 900 tgcccacggt actctggagc tgcaagccga gatcctgccc cgccggcctc ccacgccgga 960 ggcccagagc gaagaggaga gatccgatga ggagccggag gccaaagaag aggaagagga 1020 aaaaccacac atgcccacgg aatttgattt tgatgatgag ccagtgacac caaaggactc 1080 cetgattgac eggagaegea ceceaggaag etcageeegg agecagaaac gggaggeeeg 1140 cetggacaag gtgetgtegg acatgaagag acacaagaag etggaggage agateetteg 1200 taccgggagg gacctottca gcctggactc ggaggacccc agccccgcca gcccccact 1260 cogatoctcc gggagtagtc tetteceteg gcageggaaa tactgattcc cactgetect 1320 geototaggg tgcagtgtec gtacctgctg gagcctgggc cotcettece cageccagae 1380 attgagaaac ttgggaagaa gagagaaacc tcaagctccc aaacagcacg ttgcqqqaaa 1440 gaggaagaga gagtgtgagt gtgtgtgtgt gtttttttcta ttgaacacct gtagagtgtg 1500 tgtgtgtgtt ttctattgaa cacctataga gagagtgtgt gtgttttcta ttgaacatct 1560 atatagagag agtgtgtgag tgtgtgtttt ctattqaaca cctattcaga qacctgqact 1620 gaattttctg agtctgaaat aaaagatgca gagctatcat ctcttaaaag gagggctgt 1680 agotgtaget caacagttag gooccacttg aagggagagg cagaattgta ctcacccaga 1740

ttggaaaatg aaagccagat gggtagaggt gccctcagtt agcacctgtc ccatct

1796

<210> 339 <211> 1771 <212> DNA <213> Homo sapiens

<400> 339 cttgggccga gggacgtttg ggcaagtggt ttagtgctgg aaacggggca ccaatgagat ogtagocato aagatootga agaaccacco atootatgoo ogacaaggto agattgaagt 120 gagcatcctg gcccggttga gcacggagag tgccgatgac tataacttcg tccgggccta 180 cgaatgette cagcacaaga accacacgtg cttggtette gagatgttgg agcagaacet 240 ctatgacttt ctgaagcaaa acaagtttag ccccttgccc ctcaaataca ttcgcccagt 300 tetecageag gtagecacag ceetgatgaa acteaaaage etaggtetta teeaegetga 360 cctcaaacca gaaaacatca tgctggtgga tccatctaga caaccataca gagtcaaggt 420 categacttt ggttcageca gccacgtctc caaggetgtg tgctccacct acttgcagtc 480 cagatattac agggcccctg agatcatcct tggtttacca ttttgtgagg caattgacat 540 gtggtccctg ggctgtgtta ttgcagaatt gttcctgggt tggccgttat atccaggagc 600 ttctgagtat gatcagattc gtatatttca caaacacagg gtttgcctgc tgaatattta 660

ttaagcgccg	ggacaaagac	aactaggttt	ttcaaccgtg	acacggactc	accatatcct	720
ttgtggagac	tgaagacacc	agatgaccat	gaagcagaga	cagggattaa	gtcaaaagaa	780
gcaagaaagt	acattttcaa	ctgtttagat	gatatggccc	aggtgaacat	gacgacagat	840
ttggaaggga	gcgacatgtt	ggtagaaaag	getgteegge	gggagttcat	tgacctgttg	900
aagaagatgc	tgtccattga	ttctgtcaag	agattetete	cagtcggatc	cctgaaccat	960
ccctttgtca	ccatgtcact	ctttctcgat	tttccccaca	gcacacacgt	caaatcatgt	1020
ttccagaaca	tggagatctg	caagcgtcgg	gtgaatatgt	atgacacggt	gaaccagagc	1080
aaaacccctt	tcatcacgca	egtggeeeee	agcacgtcca	ccaacctgac	catgacettt	1140
aacaaccagc	tgaccactgt	ccacaaccag	ccctcagcgg	catccatggc	tgcagtggcc	1200
cagcggagca	tgcccctgca	gacaggaaca	gcccagattt	gtgcccggcc	tgacccgttc	1260
cagcaagctc	tcatcgtgtg	tececegge	ttccaaggct	tgcaggcctc	tccctctaag	1320
cacgctggct	actcggtgcg	aatggaaaat	gcagttccca	tcgtcactca	agccccagga	1380
gctcagcctc	ttcagatcca	accaggtctg	cttgcccagc	aggcttggcc	aagtgggacc	1440
cagcagatcc	tgcttcccc	agcatggcag	caactgactg	gagtggccac	ccacacatca	1500
gtgcagcatg	ccgccgtgat	tcccgagacc	atggcaggca	cccagcaget	ggcggactgg	1560
agaaatacgc	atgctcacgg	aagccattat	aatcccatca	tgcagcagcc	tgcactattg	1620
accggtcatg	tgacccttcc	agcagcacag	cccttaaatg	tgggtgtggc	ccacgtgatg	1680
cggcagcagc	caaccagcac	cacctcctcc	cggaagagta	agcagcacct	gtattgcggc	1740
	tatccaagat					1771

<210> 340

<211> 2725

<212> DNA

<213> Homo sapiens

<400> 340

ggaatteget atatgeeget ateetetggg catgteagga qqccaqatte caqatgagga 60 catcacagct tccagtcagt ggtcagagtc cacagctqcc aaatatggaa ggctggactc 120 agaagaaggg gatggagcct ggtgccctga gattccagtg gaacctgatg acctgaagga 180 gtttctgcag attgacttgc acaccctcca ttttatcact ctggtgggga cccaggggcg 240 ccatgcagga ggtcatggca tcgagtttgc ccccatgtac aagatcaatt acagtcggga 300 tggcactcgc tggatctctt ggcggaaccg tcatgggaaa caggtgctgg atggaaatag 360 taaccectat gacattttec taaaggactt ggageegeee attgtageea gatttgteeg 420 gttcattcca gtcaccgacc actccatgaa tgtgtgtatg agagtggagc tttacggctg 480 tgtctggcta gatggcttgg tgtcttacaa tgctccagct gggcagcagt ttgtactccc 540 tggaggttcc atcatttatc tgaatgattc tgtctatgat ggagctgttg gatacagcat 600 gacagaaggg ctaggccaat tgaccgatgg tgtgtctggc ctggacgatt tcacccagac 660 ccatgaatac cacgtgtggc ccggctatga ctatgtgggc tggcggaacg agagtgccac 720 caatggctac attgagatca tgtttgaatt tgaccgcatc aggaatttca ctaccatgaa 780 ggtccactgc aacaacatgt ttgctaaagg tgtgaagatc tttaaggagg tacagtgcta 840 ettecgetet gaageeagtg agtgggaace taatgeeatt teetteceee ttgteetgga 900 tgacgtcaac cccagtgctc ggtttgtcac ggtgcctctc caccaccgaa tggccagtgc 960 catcaagtgt caataccatt ttgcagatac ctggatgatg ttcagtgaga tcaccttcca 1020 atcagatget geaatgtaca acaactetga ageeetgeee aceteteeta tggeaceeae 1080 aacctatgat ccaatgctta aagttgatga cagcaacact cggatcctga ttggctgctt 1140 ggtggccatc atctttatcc tcctggccat cattgtcatc atcctctgga ggcagttctg 1200 gcagaaaatg ctggagaagg cttctcggag gatgctggat gatgaaatga cagtcagcct 1260 ttecetgeca agtgatteta geatgtteaa caataacege teeteateae etagtgaaca 1320 agggtccaac tegacttacg ategeatett teceettege cetgactace aggagecate 1380 caggetgata egaaaaetee cagaatttge tecaggggag gaggagteag getgeagegg 1440 tgttgtgaag ccagtccagc ccagtggccc tgagggggtg ccccactatg cagaggctga 1500 catagtgaac ctccaaggag tgacaggagg caacacatac tcagtgcctg ccgtcaccat 1560 ggacctgctc tcagggaaaa gatgtggctg tgggagggag tttcccccag ggaaactcct 1620 aactttcaaa gagaagctgg gagaaggaca gtttggggag gttcatctct gtgaagtgga 1680 gggaatggaa aaattcaaag acaaagattt tgccctagat gtcagtgcca accagcctgt 1740 cctggtggct gtgaaaatgc tccgagcaga tgccaacaag aatgccagga atgattttct 1800

aagatcatgt	ctcggctcaa	ggacccaaac	atcatccatc	tattatctgt	1860
gatgaccctc	tctgtatgat	cactgaatac	atggagaatg	gagateteaa	1920
tcccgccacg	agccccctaa	ttcttcctcc	agcgatgtac	gcactgtcag	1980
ctgaagttta	tggctaccca	aattgcctct	ggcatgaagt	acctttcctc	2040
gttcaccgag	atctggccac	acgaaactgt	ttagtgggta	agaactacac	2100
gctgactttg	gaatgagcag	gaacctgtac	agtggtgact	attaccggat	2160
gcagtgctcc	ctatccgctg	gatgtcttgg	gagagtatct	tgctgggcaa	2220
gcaagtgatg	tgtgggcctt	tgggggttac	tttgtgggaa	aactttcacc	2280
gaaaaggccc	ctattcccca	gctgtccaga	tgaaacaggt	tattgaagaa	2340
gttcttcccg	agacccaagg	gagggcagac	ttacctcccc	tcaaccagcc	2400
tgactcctgt	gtaataaagc	tgatgctcag	ctgctggaga	agagatacga	2460
ctcattccaa	gaaatccacc	ttctgctcct	tcaacaaggc	gacgagcgat	2520
					2580
					2640
ttttcctggt	cacccccact	ccctacccct	gactcatata	tactttttt	2700
aaagaactaa	aaaaa				2725
	gatgacccte tecegocaeg ctgaagttta gtteaccgag getgactttg gocagtgate gaaagtgatg gaaaaggace gttetteceg tgactectgt cteattecaa cetggceatg tgecacteea ttteetgg	gatgacocto tetgiatgat tecegocasg agococtaa ctgaagitta tggctacca gttaaccgag atctgccac gotagtocto ctatcogetg goaaftgatt tgtgggott gaaaggagc ctatcocca gttettecog agaccaagg tgactoctf gtataaagg ctcattcoa gaaatccac cctggcatg ttoctagga ttocatcc ttocacco ctggcatg ttoctagga	gatgacccte tetgtatgat cactgaatac teccegocage ageocetaa tetetectec etgaagitta tggetacca aattgeetet giteacegaa attggetace aegaaactgt getgacttig gaatgacgaa gaacegtaa goaagtgate tgdggetat tgggggtat tgggggcagaagtgat tgdgggetac agaccagaagtagat gaatecetg gaagccaga gagscagaagtagateagaccagaagtgactectuteg gaaccagaag gagsgcagaagtagatecetgt gtaataaage tgastecetgt etgaaaatgactecetgt tetatage teagsgccag tecatocaa gaaatecaae tectggcatg tectagaaatt taatgaaact tgccactca tetggacatt taatgaaaattttettetgge cacccaca coctaccce tectgacaatt coctaccoca coctaccoca coctaccoca coctaccoca coctaccoca coctaccoca	gatgacccte tetgtatgat cactgaatae atggagaatg tecegoaga agecoctaa tetetectec agegatgtae tegaagttta tegetacca aattgeetet ggeatgaagt giteaccaga acttgacae agaactgt tetgtgggta getgactgttg gaatgagaeggaagtgtee etatcegetg gaatgtettg gaaggatatet ggeatgtete tetggggtae tetgggggtae tettgggggtaa tettgggggtaa gaaaaggce etattcecca getgtecaga teactgaagaagaagaagacagaegaegaagaagaagaegaegaegaegaegaegaegae	aagatoatgt otoggotoaa ggaccoaaac atcatcoatc tattatctgt gatgacoctc bctgtatgat cactgaatac atgagaatg gagatotcaa tecegocacg agecoctaa tetetucetc agogatgtac gcactgtcag ctgaagttta tggctacoca aattgoctct ggcatgaagt acctttcatc gttacaccgaa atctggccac acgaaatgt ttagtgggta acctttcocc gttacaccgaa atctgccac agaaatgtac ttagtgggta atgaccacgac gcagatcttc gaatgagaag gaactstsa agtggtgact attaccggai gcagtgatcg ctattcoccg gatgtctctg gaagatgatch tggtgggcott ggaaaggccc tattcocca gctgtccaga tgaaacaggat tattgaagaa gttcttcocg agacccaagg gaggcagac ttacctccc tcaaccagc tgatctctg gtaataaaga tgatgtcttg ctggggaa agagatacga ctcattcocaa gaaatccac tctgcccct tcaacagag gacgagacat tccttcocg tcattcocca tcttcccc cocacacaca tcctctcccat ttagtaacac tcctgcccct tcaacacaga gctctttcccc tcaccaccaca tctgaccact taatgaaacac cctgccatca tctggacatt taatgaaaca gaagaacaga ggcttgtttc ttttcctggt cacccccact coctacccct gactcatat tacttttt

<210> 341

<211> 916 <212> DNA

<400> 341

<213> Homo sapiens

cgtccaggga	gcactgccca	caggccgagc	cggggcctcc	cgcaagagga	aggaggtgcc	60
ctcaaggcta	cggacctggg	gtcccggtgg	tggacgcccc	atggggctca	ggcctaaaga	120
ggccgagagg	gcctcgggga	cccagtgcat	gccccacgct	gagcagcaca	ggctgcccca	1.80
ccgtgggctc	cccgatctct	ctctggatca	ccgagacctc	gcagggaggg	tcatcagggg	240
cgccaggccc	agggccacca	cagtggaagg	tatacatta	cccaggcacg	taatcttcca	300
ggtcagccag	tgtcagcatg	cggccgttgt	gcgtgaggat	cttggggtca	cgatccccaa	360
ggctgtgtgt	gtcctgggac	tecteegtea	caaaggcgtc	tecgtettee	ccctcttcct	420
ctcccgcctc	ctccatggtg	ccctcctcct	ccaggetgee	catgccagaa	gcagcccagt	480
ccacactgcc	tetggcatee	acgcggaaga	caaggggctc	tctgacgccg	accatggctg	540
tgccctgggc	ccaggcctcc	tgggccagca	gcttgttgtt	ggagttgttg	gaattggggt	600
cccctccggg	ggtcgcaccg	ggcagtgtga	agagatgccc	cgatgagctc	ctgggcacct	660
ctgtggtggg	agacacaccc	tgcgggccca	tettetteae	ccggacttca	atggtctcct	720
ccacctccac	ccacttgggc	tggggccccg	agagtccggg	cagagetgga	gagtgggcct	780
cggcctccgt	cacatacagt	gtgggcacca	cgggcttctg	gcctggttct	gceteeggee	840

tgcggggctg gccagcacct ggcaggtaca gcaggtcggg ggccagtagg cctggcctca

840

900

916

<210> 342

gegggetgge agagea

<211> 860

<212> DNA

<213> Homo sapiens

<400> 342 caagatcccg acaggettaa tegeteeett aaggaaaaag ttatteettg catccgeggt 60 aaacttgggc ccccccaagg atcctttaaa cgggccgccc ctttttttt ttttcaattt 120

```
cttcaacagg tcatgttcaa tttcttcaaa gttttaacat aaaaataatg agagccagga
                                                                     180
gtggggccgg ggcctggggg gacgaaggtg gtatgtgaaa caaggttggc acacaggcct
                                                                     240
cacceteete tgeeteagat teccaagtgg geaggtgggg gtgaatgggg etecgggtag
                                                                     300
cacctcaget cetetcaget ecectcagee tgttetcett ecagacccag agagetgaga
                                                                     360
agagtagetg tgaggeteag ggcagagget etetgeettt caggaacage cettaaccet
                                                                     420
geteccettg ettgggeete aggaaggtge egegagetet eetgeegtee etgggeegee
                                                                     480
etggetetge tgtgtecaga tggteagget actgccaget ggggeettge tgctctgaag
                                                                     540
teccaggaag ccaggggtet gcaggageet ettgeeteca ggetggttgg ggaagaegte
                                                                     600
ctccaggaag tagtagatat ggcccaccgc aatccccagc aggtccacga ggatggagtt
                                                                     660
geccageage agegagaage ceatgagege ceaaggeagg aaeggtgeet ggaaetteeg
                                                                     720
qaacacaaqq tqcqqqttga agtagagttg aaaggggctg aggagctcca gctgcaccgc
                                                                     780
ggcggtggtg aggacacagg ctgcggtgta agcccgcgtc accgccggca cctgcaggaa
                                                                     840
cteggeeget agtecetgee
                                                                     860
```

```
<211> 3658
<212> DNNA
<213> Homo sapiens
<220>
<221> misc_feature
<222> (1)...(3658)
<223> n = a,t,c or g
```

<210> 343

<400> 343 ttttttttt tttaagatag aaatctatgc actttaatga ttgccagaat tgcccagcat agetteagta aaatagagaa ttgtetagaa aatacaatet ecaaaatgtg tgcaagtaet 120 gcaaaccgga cagaccgggg cagggcaagg cccttgaaac caagtcctcc ttgagcacct 180 ttoccargtt agaaacccct cttcagcctg tgcttcgcac gtttccttca gcgtgccgcc 240 catteagact gegecaactt aegteeceag tgeccaegee tgngtggate aagtgtecaa 300 360 cgggaaagta tgagttaggg caagcgcttt ttttttaagc tgtaaacgct tcacatgact 420 qqqcccqta aqqaaattqt qqqqaqctta ggatgagcct gggagctttt tcagggactt ggatgaggac tetgtacaca aatgtgtact ggcagagagt etgcaccage atcattetet 480 gttgccctca gcatgtccag cactctcggg atgtccagca cctcattgtg ttccaggcag 540 600 gegatcatga teteegacaa aateaceaeg ceagteette etaeeceage aetgeagtgg accaacaacg gagggttggg gctttgggga tcacttgtgc tatttgtatg gcgtcgaaca 660 gactggatet etteaagata tgataaaaat eeettgaggt ettetggaca gecatgttea 720 780 ggecagtetg tgtattggag gtgccagacg gtcctctctt gcccggtaag gaggtgcttc 840 atetteagge etgtggtgge atageageea gagtetgtge ggaacegggt egtgatetta aaccttccat aggtgacagt gttgtgcctg gaaccaagtc gtggccagta cctaaagctc 900 ttetecette caccetecte ttetgetgte accattgeta taattgeaat teeetgttee 960 cataccatct gccaaaaatc ttgacaggta ttctgtaatg gtccctgtgt ggcaatataa 1020 teccattega ttecaetgae agagacetta atatgtgatg egttgatgta accagtgttg 1080 ttttctttag ttgggaccaa ctccactctc acatcatcat aaggaagaac atcttggaat 1140 1200 cgatttettt etgeatttte agggagtegt getgttgage actecceate aactageegt 1260 ttettaagaa ttettteata ttetgtgaat accatteett gttetaateg ttgtteeaga 1320 attttacacc tttcatcatt cgttqctctg gtagccactt cctttccttc atcaggcaga ggcactcgag atagggagag tccatttagg gcagccagtt taagaggacc aattttttt 1380 gcatctactc gagtettttt cattccccct agaggcggga gcccttccac gatgttcttc 1440 ttcccagaga gaaggtccga caccggcctt ttcttcagag agtccctccg ggctcggtag 1500 eggeetgacg tggtgaggte ggactecgae atggagggea teageagece gtetetecag 1560 ggccgctggg cetetgeggt cgtgcggacg gggetgetgt ccatcatect ettetecgcg 1620 1680 tetgggaegt gggeettggg etccaggatg tgcaggggee eggegageag gaegegaggg 1740 caqccaqqtq qqtcctqqqc cagqccqqqc cgaqqctcqc gcgcacqtqc agggggcqcc egggeeeege teteeteete gaagteeteg teeteeteet eetegetget gtggattage 1800 atggtggcgt cegacaggga cttcttatgg ccgtacctca agccctccgc ctcctccggc 1860

ccttctcgct	gtgtcctctc	ggtgaaaacg	ctggggctgg	gagcccaccg	agacggctcg	1920
cggcgcccac	ctctgccgcc	gacgcggata	gggtgcgctc	cttgagccgc	aggccctcca	1980
ggccgtggct	gageceggee	acctcgatgc	tgttccgttt	gtgcagctgc	gcgtggcgcg	2040
cggcggtgag	gggctcgctg	acctcctgca	gcgagtgcgc	cacgggcagg	ctgtcctcct	2100
	caccgagtgg					2160
tgtaaaggtg	gcgggacagg	tctggcgtgc	tgttggcggg	cctggggggc	gggtagggtg	2220
ggggtggccg	gtacacctgc	gtccgcatga	tgttgggaga	cgggtagtcc	tgcgcctgca	2280
gctgcgcatt	ggtcagctcc	ggcacgctga	ccgcgcccac	caegggeege	cgctcggcag	2340
ggtaggggta	gggagacggg	ctgtggaagc	tgtagctcag	gctgaacggg	cagtgtgcgg	2400
ccgctggcga	ggggagctgt	gcgtgctcgc	ggatctcggg	ctggctgtag	accagegeeg	2460
	gtaggcgtac					2520
gttccgcatg	caccaggccc	ctgttgagct	gcttcatcac	agtctcatag	tctggggtgg	2580
ggcggtagga	cgggggtatc	acggcgctgt	gccgatggga	cgggaggtag	tcaggcctca	2640
	cccggtgatg					2700
gaggattatt	taaggagttg	gtgctgtgtg	cactgtagac	actggcattt	acggatccga	2760
ccgttgaagt	caatctgggc	tctattcaag	cttgtctgaa	attgaccata	gtatecette	2820
ctggttgggc	acaaagaggt	tatcttggga	agaagcatat	ggttctgtat	aatgtccatt	2880
atagtgcaac	tggcggtggg	ggaggcatca	cgtagggctg	gggtttaggc	agagacatcc	2940
	cctcctcctg					3000
	gtaaaacttg					3060
	agtttgaaat					3120
	gtgggacatg					3180
cattcttgtg	tttcacaaag	ataccttcaa	gacacgetee	aatggatatg	tcacttcctt	3240
	agcagggtag					3300
	ttcagcatca					3360
	tgcttcttcc					3420
	aagaaagtcc					3480
	tgctaggtga					3540
	cagttgcaga					3600
cctgaggcgc	ttaaaccccc	attccaaaat	agacggtagg	ttccaaggcg	ttttttc	3658

<210> 344 <211> 419 <212> DNA

<213> Homo sapiens

<400>	344					
aataaagaaa	gaaacagaag	ctggccgagg	agtgagttga	getttecaag	ttagctgacc	60
ttaaagatgc	tgaagetgte	cagaaattct	teetggaaga	gatatagctt	tggtgaagag	120
atcctagcta	aaggtgtaga	ccacctgaca	aatccaagtg	ctgtgtgtgg	acagccacag	180
tggttactgc	aagtgttaca	acaaactctt	ccactaccag	tgatccagat	gcttctgaca	240
aagcccctac	cagttaatca	gagacttgta	agtgctggcg	cttggccaaa	gacgatgtgg	300
aatgagaaac	aaatgtcaac	ataataaaat	ctcagttaaa	atacttgaaa	aattcttaac	360
ttggtagttg	agcagaaggg	caaatatgct	tgttatgaac	tattctacat	tgaaatcta	419

<210> 345 <211> 1253

<212> DNA

<213> .Homo sapiens

<400> 345 qqaattcctc tgtcccgcca tacacagggt gggacggggc agggcgggca ttgagctttg tgtcctgggg tcagggtgct tcccctgccg gcctcacccc accaagcgga tctcatggtg 120 ctcctctqqc tqqqcccacc cqcaqtqqta tccttctqqq qqcccttatq qqaqcctqcc 180 gggggtgcag atcctgccgg gggtgcagag cctgctgggg gtgcagatga tttctgggtc 240 ccaggaccat gaggggctg ctctacacac ageeggaaga tgetgeggac ccaaaetgge 300 cettecete ccacaccace ccaggaccaa tgggctggct ggaggccace catgetaaaa 360 taggeteaag ggeetaettt agettetggg eaaaggtett ggeetgggee tgaetetgtg 420 quettectqa getgeeteee cagtaggeet cagtgetggg etacaggeet cetecattee 480 etecatteat gtgaccecae cecteccage agaaactete tteegtagee caggageage 540 tgttgagggt ttcacctgcc catgccccag cctaaggccg gettecccag agcagacggg 500 ttgcactete etgecectea ggeccactet gtcatccaac aagetcactg caactggece 560 atottaaaaa caacacegge tggtcacget ggctcacace tgtaateeca gegetgtggg 720 aggccggggc ggggggatca cttaaagtca ggagtttaag accagcctgg gcaacatggt 780 gaaacccgag ctccactaaa aacacaaaaa caaattaagg caccctgagt ggtggtgggt 840 gcctgtggtc ccagcgactc gggaggctga ggcagaattg cttqaqccca ggaqqtqqaq 900 getgcagtqa gccacgatcg catcacgcac tccagcccgg gcaacctggc aagaccctga 960 ctctaaaaag aaaaaaacaa caaaaaaaaa aagcccacgt tcaagggcag cactattcaa 1020 aagagggaag caactcagga atccaaacgc gcaggaggga acacatcggg gttcatccac 1080 aggggaacac gattcaccca aaaaaaggaa ggaaaccggc ccggccccgg gacttgaatg 1140 cacctggagg agactgtgat gaacaaaagc acccaaaccc aaaagggcag ggacggggtg 1200 atotgactga ggtgaggacc ccagccagcc aaattcatgg agacagaaag aag 1253

<210> 346 <211> 807

<212> DNA

<213> Homo sapiens

<400> 346

tttcgtcgga	ggcgggcgcg	ggcgcgtccc	tgtggccagt	cacccggagg	agttggtcgc	60
acaattatga	aagactcggc	ttetgetget	agegeeggag	ctgagttagt	tctgagaagg	120
tttccctggg	cgttccttgt	ceggeggeet	ctgctgccgc	ctccggagac	getteeegat	180
agatggctac	aggccgcgga	ggaggaggag	gtggagttgc	tgcccttccg	gagtccgccc	240
cgtgaggaga	atgtcccaga	aatcctggat	agaaagcact	ttgaccaaga	gggaatgtgt	300
atatattata	ccaagttcca	aggaccctca	cagatgcctt	ccaggatgtc	aaatttgtca	360
gcaactcgtc	agacggggtt	tcactgtgtt	agccaggatg	gtctcgatct	cctgacctcg	420
tgatccaccc	gcctcggctt	cccaaagtgc	tgggattaca	ggcgtgagcc	accacgcccg	480
gccaatattt	tgtaattttt	agtagagatg	gggtttcact	atgttggcca	ggctagtctt	540
aaactcctgt	cctcgtgatc	ctcccacctc	ggcctcccaa	agtgctgaga	ttacaggtgt	600
gagccactgc	atccagccaa	taatatgctc	tttaacaaac	aatggatcaa	aggagaaatc	660
acaagggaaa	tagaaaaata	cttaaaaatg	aatgaacatg	aaagaaaaca	taccaaacgt	720
atgggaaaca	gtgaaaacag	tgcaaacgag	gcaatttata	gctatacacc	attaaattta	780
aagataagaa	agacgtcaaa	ccaacaa				807

<210> 347

<211> 918

<212> DNA

<213> Homo sapiens

<400> 347 tttttttttt ttagaatata tttcatttta ttataaagca gtgctcccaa acttttcaca 60 gcgtacacct cqaqggtgga gaactaacat ccaagcacac ctgqatqqtq qatqqqaccc 120 acttetgggt aacctgatga ggaageteta gtgaagaaat teaggaegeg gtetteagag 180 cagagggett ggttcaagte cetgttetge caettactaa etgeatgace ttgagcaage 240 cacttaattt ctctqctcct tctctqtqaa atqqqtacaa tqtqqtcaqc aqtaaaqqaa 300 ctaatacatg tacagcacte agcacaaage etggcacaca geaggetete accaggtgee 360 attoteagea caactgettg gttgagetae tgtggeagtg geaggttgtg ceccaagggg 420 gtgggctcag gagcccgtgc agcaagaggc agtgaccaag gaggcagggg acaatagccc 480 tatettttea ggatetetge ettggaeetg gaqaatggag agaetttget eetateaegt 540 occaagtigg gaaaactaag gacgaageeg gigacigaca telgaaatgg aatectetge 600 atotocaagt ggocctatac otgacaatat cattactagt gaaaaccaag tgacaaacac 660 actectegae eccaagitet tecacatgie ecatigagga gageacagee aataaegeag 720 agtgtattta tgcgcagggc tggctaaaca ggctggctac gagtccggaa cagtgtcagg 780 atetggette ecattggeeg acatgacaga ateetteteg egttgetete tgatgtactg 840 gtccaacagg gtggtcaget ggaggggetg gtgetggage agggagtggg tetgggetgt 900 gaggcaggtg gagttctg 918

<210> 348 <211> 1893 <212> DNA

<213> Homo sapiens

<400> 348

ctgaatccat ggaaaaacgc tttacaggac ttctqcttac cttttctcag aatcaccagc ettetteage accaeetttt tggggaagat ttacetaget geeaggaaga agaagaattt 120 tragttettg cragetgeet gggaettetg craacqtttt accaaacaga acatecatte 180 atcagtgcct cctgtctgga ttggccagtt ccagcatttg atattataac tcattggtgt 240 tttgagataa aatcatttac tgaaagacat gcagaacaag gaaaggcctt gcttatccaa 300 gagtcaaaat ggaaattacc acacctacta cagttgcctg agaattataa caccattttt 360 cagtactacc acagaaaaac ctgtagtgte tgcaccaagg ttcctaaaga tcctqctqtt 420 tgccttgtgt gtggtacttt tgtatgcctg aaaggacttt gctgcaagca acaaagttac 480 tgtgaatgtg tactgcactc tcagaactgt ggtgcaggaa caggtatttt ccttttgatc 540 aatgcatcgg taattatcat cattcgaggt caccgcttct gcctctgggg ttccgtgtat 600 ttqqatqetc atggaqaqga aqacegggat ettaggegag gcaaacetet etacatttgt 660 aaggaaagat acaaagttot tgagcaacag tggatttote atacttttga toacatcaat 720 aaaagatggg gtccacatta caatgggctg tgactctcca cctcagcatt gcatcgtatc 780 atcattttcg ctacgaattt attttcaac aataagettt aacttaattt qqqqqattaa 840 cacttttgct gagggagaaa aagaaaacat acattatgaa qcctttccaa aattaggtgc 900 ttggtaatca cgttaatggt ataatttttt ttttttaata tctggagaac attaataaca 960 agttaaatta ttetttagtg gteatttttt aagtgeacaa ttaataagaa geacaacttg 1020 ttcacaaact cattcagaaa tgattctccc aacaatgcat atcagctatt cattgatact 1080 tagagtgggt gtgatttatt tgacatttta etgettettt etgtetgtgt gttttaattt 1140 gcatctgcca agcataatgc atctttttc ctctgccatt cttgtgttga ttggagaatt tttctgtatg taattagaaa aaaatqtaaa acatgattta tqtqaaatac tqtataqtaa aagttggtct aatagtagaa ctttaaaatt ttttcttatt qtgaqqaatc tqttaaaaqt 1320 ttaaagettt getgaaaact gaatteatte teaggaattt cataaatett etecceaggt 1380 asataattga aatagetgta aaataagtag atagetgetg ttaatataat acagtacatt 1440 ttggggggca tatgtgtggt tggggggtcc ttaaaaatca aaatttgcca tttcagttgg 1500 atgaattact agaggtaata acaaatetta etataaaate aagaggttta agaacataca 1560 ctgggcagat gttgattccg tgcatgccca ccttttatta ccaaacaaqq ttttgtttat 1620 atgattgtat tagaaatgct cagacttccc cagaaatgaa ccataaattt tggaacttcc 1680 tttcagctca agaggttcag ctatattgta tttgtgcagt ggtaatcact acctatttct

agccacgctt	tccctaaaag cctgcattcc aaatccagta	teettaggaa	ctggctgtgg		1800 1860 1893

<210> 349 <211> 1433

<212> DNA <213> Homo sapiens

<400> 349 qcaaqqqqca qttqqtqaac ttqctqcctc caqaqaattt tccctqqtqt qqaqqcaqcc 60 agggaccag gatgeteegg acctottacg tgetetgtte ceaagetggt cecegeteea 120 ggggctggca gtccctgagc tttgatggcg gggccttcca ccttaagggc acaggagagc 180 tgacacgggc cttgctggtt ctccggctgt gtgcctggcc cccactcgtc actcacgggc 240 tgttgctcca ggcctggtct cggcgactcc tgggctcccg gctctcaggc gcatttctcc 300 gagcatccgt ctatgggcag tttgtggctg gtgagacagc agaggaggtg aagggctgcg 360 tgcagcagct gcggaccctc agcctccgac cactgctggc agtgcccact gaggaggagc 420 oggactotgc tgccaagagt ggtgaggogt ggtatgaggg gaacctoggt gctatgctgc 480 ggtgtgtgga cctgtcacgg ggcctcctgg agccccccag cctggctgag gccagcctca 540 tgcagctgaa ggtgacggcg ctgaccagta ctcggctctg taaggagcta gcctcgtggg 600 tcagaaggcc aggagcctcc ttggagctga gccccgagag gctggctgaa gctatggact 660 ctgggcagaa cctccaggtc tcctgcctca atgctgagca gaaccagcac ctccgggcct 720 ccctcagccg cctgcatcgg gtggcacagt atgcccgggc ccagcacgtg cggctcctgg 780 tggatgcgga gtacacctca ctgaaccctg cgctctcgct gctggtggct gccctggctg 840 tgcgctggaa cagcccgggt gaaggcgggc cctgggtgtg gaacacctac caggcctgtc 900 taaaggacac attcgagcgg ctggggaggg atgcagaggc tgcgcacagg gccggcctgg 960 cetteggagt gaagetggta egaggtgeat atetggacaa ggagagageg gtggeecage 1020 teccatggaa atggaagace eccecactea ggetgaetat gaggecacea gttcagagtt 1080 acagocogot gootggaact gatgotgacg cacqtqqooc gocatqqooc catqtqooac 1140 ctcatqqtqq cttcccacaa tqaqqaatct qttcqccaqq caaccaaqcq qqcaqqccqq 1200 ctatgtagtg tataagtcca ttccctatgg ctccttggag gaggtaatcc cctacctgat 1260 ceggagggec caggagaacc ggagegtget teagggtgec egeagggaac aggagetget 1320 cagocaaaaa etgtggegge ggetgetgee aggatgeega aggataceee actageacee 1380 ctgagggggt catgtggtca ataaaagtcc ttaggtgctg cctaaaaaaa aaa 1433

<211> 1062 <212> DNA <213> Homo sapiens <220> <221> misc_feature <222> (1)...(1062) <223> n = a,t,c or g

<210> 350

<400> 350 tttttttttt ttocagical taatgatetg teettitgag alettitaet teagaggaag 60 atttaggeaa gagageaca tataatagte agigatacaa agaaqggeat qgaacatttg 120

gggaacacag	gggtttggag	ggcctgaage	acaggggtgg	tggtattaga	aatgtgggaa	180
atatgggcca	tgagcctccg	gacagaatgg	ggtccaggaa	ggacagcatc	acacactggt	240
gctggaattt	ggggatcctt	ctgtgggcaa	cctcagcagt	ctggttattg	gcccttttt	300
cttacagcct	ggaaaactgg	accaagtttc	tattgatctc	agcgaccgac	cggcagcctg	360
taaggggcca	tggaagtgtg	gaactcattt	gttaaaatgt	tcaaaacttc	cttaacacca	420
tgttcaccct	tgcaggcaag	gccccatagg	attggtctcc	caagaaaaat	gcacttagct	480
ccaagggcca	gagccttctg	cacatcattg	ccagttctga	ccccggcatc	caggtagtac	540
ttcatgttcc	cctattcagc	agctcctact	tctgtcaaag	catcaattga	agcaagaacc	600
tcatcaagct	gcctcccacc	atggttggaa	acaatgatac	cctggacatt	gtgcttcaca	660
gctaactctg	catcctcttt	tgtcaaaatc	cctttcagga	tgatgggcaa	tcgagttatg	720
ctctgaaacc	aggagagatc	attccagcag	agagaagtgc	tgataggagt	catctggaaa	780
taaggtattg	catttccctt	tttaggtgat	tgaagatctg	ttagtgttaa	gttcctcctc	840
aactggtttc	gaatgtcatg	tcgcctgttg	ccacatacag	gtgtatccaa	agttattacc	900
aaagctttga	aacctaggga	ttctaccctc	tggatcaact	gtttgttcag	ctgcaggtct	960
ggatgcacat	agagttggaa	ccatcggagg	ccttcgggag	ctcttgctgt	gctcatttcc	1020
ccgaattcca	ccacnctgga	ctagtgttct	caaaannntc	ga		1062

<210> 351 <211> 1227

<212> DNA

<213> Homo sapiens

<400> 351 cagtititit tittitit tgctgcatga tittattact ataaatatac agtaaaaacg 60 aaccaacgat gagcccatct gagcacatca gacggcagca catgggagtc ccagegggcc 120 actotycygo cogaacttca cycaaagoto tyycaccagy actyatygoc agagyctygy 180 gccttggtgg gggcgggggg cgggcggtgc agggggctgt gtgtgttgtt ggggagaggt 240 gcatgggggg agagaggtgc ttgggqtggg gtagaggtgc gtgggagatg ctcgqtccqa 300 gtgcacacac atgcatggga acatgtgcag gagtatgtgc gtgtgtgtat gcgtgacagc 360 atgtgtgage gtgagtgtge atgtgtgaac gtgtgegtga geatgtgeaa gtgggegtge 420 attigtqtqt qtqtacqtqt qagcqcatct qcqtqcctqt qcacqaqcqq qaqqqqtqqc 480 tggcctgggt gtgcagggag ctgggtgtga ggaccqtgct gtccactgct gggtctcgcc 540 caqqaqqcaq aqctcatqct cqqaqccacc qtqaqcctca qqqaqqqtac tqaqctqccc 600 cacagoogac ctgtccccag gcccccactg cagggcagcc ctccagagcc aggtgagcag 660 cagacacctt gcctggccca aggctccgca ggggtggatc catgccctgg gtcaccacgg 720 cccaggcact ccctttgcca tctgcggccc caggaggttt acctataaaa aaaacaaaca 780 aacaaacaaa caaaacagga cgaggtcgcc cagaggccaa gcctccccgg ccgggacccc 840 attecccagg tgtgetgetg getteeteet eeetgggeee ageetgeeac agaaageetg 900 agacagaaca aaccaaatca gagagaactg caagggggcc gggcgcggag gctcacgcct 960 gtaatctcag cactctggga ggccgaggca ggtggatgac cttaggagtt tgagaccage 1020 coggocaaca tggtgaaatc cottototac taaaaaataca aaaaaattag cogagoatgo 1080 1140 tggtaggcac ctgtaatccc cagctactca ggagcctaag gcaggacgat cacttgaacc egggaggegg aggttgcagt gaccegagat tgagceactg cactecagec tgggcagcaa 1200 gagtgaaact ccatctcaaa aaaaaaa 1227

<210> 352

<211> 1194

<212> DNA

<213> Homo sapiens

<400> 352 tttttttttt ttatgatttt aatatacttt atttatttaa aaagtacaca gttttaaatt 60 ggtttcaata ggtttcaagc agaagggaca ctgcctacca cttgcggtcc catttctgat 120 gaagggtgat tatcatgtgg caaactcaca tttgcatgac tggcaaagta aaaagataga 180 taactttttg tcaacatatc tttaagagtt tatatcacgc acagtttaaa atcatgacga 240 gatgctqatg gttggactat attcatgtct cgtatgttgc accatatttt ggttcacagt 300 ttatccatga tttagcatgc caagagaaca tctcagtcag taagagaaca tctcagtcag 360 tgtcaccttg agaagagcat caaaagcaga gggggcagaa ggaggaccgt ctgggcttgg 420 agactoggeg caccoccaca ctccctcgca ttctcctcag gatggaagec atgacaagat 480 tetgggegee ttetgatett etgggeettt agaegtteae aettaaggga tteattatgt 540 tgactgtagt taaggcatgt ttccaaggat tgcttttttc tactctgcat ttcagaggtc 600 aaaatttggc aatgacaact ctcttaacta ctctctctct ccaacagtgg aaaggatgta 660 attitectic tetaatatit eteccecagg titectiace actgatacce ettactggtt 720 tccgtggtag tgagtggacc tgcacacaaa aggatatacc tgatttcaat gggtgccatg 780 gtgatggggg ccacagattc acagaggcag ctgctgtcca ccaccaccat gaacaggttg 840 ctgcttggga tttgctggat gacaaaggac ctgttggaac aagaggtagc gaggcaqtca 900 tttaccatcc gtcaattaaa gagccatgag gaagacttct ctcctgggtg gtagcaacta 960 ccatattttg taaagcaaat tttggagact attttactac taatgttacc ttctttctcc 1020 atgaggetet teaettacaa atacetaget teaetaggaa aacaacaata getatgacga 1080 catgoggete atacaactea cettggaaag actgaagtge tgtatgtaca aaacacaaga 1140 gtcagagttg gctgaatcac ctgttcccaa ggtttaagag gtcagacttt caaa 1194

<210> 353 <211> 1140 <212> DNA <213> Homo sapiens

<400> 353

acteteacaa ttaaaacatt tggaaaggaa ttaatggtgt attteeatta gggaaagtge tgacaageeg caagggatee ettgatggtt etgggeatgg gegeecagee tgggetetgg 120 etttgggage agegagggga atgtgtetet caccectagg ceteetggte tggeteetge 180 teaggecaca eggegeacce acceccageg egecteagte caggteactg ggeagggtgt 240 ttactgctgc gctccaaccc aagcatgtag atttcagaag gggactagga cccccggcag 300 gtgtttgaga ccaccggctc ccaagtgcgt cgccttgggg gtttgcatcg gctcctcagc 360 ctccccaggc aatctctgtg tagggtcggg agcgggaggt ctgagttgag ccgggtgcct 420 gagateteeg gtgcaggteg ggggagggga gececeeteg ggetgtggtt agagegggag 480 aggaacttcc cagactagct ggcacagagc ctcgggaagg cggcgggcac tgcaggtggt 540 ttacgggaag tgctgcagcc ttggggtggg gacagcgtgg ccagacccac cgcctcatct 600 geacacetgg geteaagege taatgacgac aggggaetga gtgaatggga eccecatgga 660 ecegegegee tgeeceaege catggeetgg gtttegggag cettgettta ttetgeeteg 720 ggtcggaggc tgggggagcg agacetecag tgcccgtgcg getgggggag agggtggagg 780 ggccacttag atgtaggagt catcaccacc gggcgcatcg tagggacccc cacccctccc 840 egegeeeteg eceteatege egetgeegga gteaetggeg ceatecaegt ceagggtggg 900 egegttgaga acgaecacgt etgeeteegt eeegatgtee tegecaaace agacageett 960 gtacccgccc tetggecgcc geteettggt caggatggac etcaccgccg tggggettec 1020 gecagetegg geegetgegg ggggeteaag ggeaeegeet ggggaggeag ggeeggggg 1080 tgcgggctat gcgggcatcg gtgcctccgc gggcttgggg tcgtgcgtgg ggctggggac 1140

<210> 354 <211> 2401

<212> DNA <213> Homo sapiens

<400> 354

agttaatoto titggotggg cotacagatg acatacagag tacaggocco caggitcatg 60 ctttaaatat ccttagagca ttgttcagag atacgcgcct gggagaaaat attattcctt 120 atgitgetga tggagetaag getgeaatte tgggttttae atcaccgqte tgggcaqtqc 180 gaaattcatc cacacttete tttagtgeet tgatcacaag aatttttqqa qttaaaaggq 240 caaaggatga acattccaaa acaaatagaa tgacagggag agagtttttc tctcgtttcc 300 cagaactota teettteett eteaaacagt tggaaactgt agccaataca gtagacagtg 360 atatgggaga accaaatcgt catccaagca tgtttctctt acttttggtg ttggagagac 420 totacgotto cocqatqqat qqtacttott ctqctotcaq catqqqacot tttqttccct 480 teattatgag gtgtggteac teacctgtet accacteceg tgaaatggea getegtgeet 540 tqqtcccatt tqttatgata gatcacattc ctaataccat tcgaactctg ttqtccacac 600 tecccagetg caetgaccag tgttteegge aaaaccacat teatgggaca ettetecagg 660 tttttcattt ggtgcaagcc tactcagact ccaaacacgg aacgaattca gacttccagc 720 acqaqctqac tgacatcact qtttgtacca aagccaaact ctggctggcc aagaggcaaa atccatqttt qqtqaccaqa qctqtatata ttqatattct cttcctattq acttqctqcc 840 tcaacagatc tgcaaaggac aaccagccag ttctggagag tcttggcttc tgggaggaag 900 tcagagggat tatctcagga tcagagctga taacgggatt cccttgggcc ttcaaggtgc 960 caggootgoo coagtacoto cagagootoa coagactago cattgotgoa gtgtgggoog 1020 eggcagecaa gagtggagag egggagacga atgtececat etetttetet eagetgttag 1080 aatetgeett ceetgaagtg egeteaetaa eaetggaage eetettggaa aagttettag 1140 cagcagcete tggacttgga gagaagggeg tgccaccett qetqtqcaac atqqqaqaqa 1200 agttettatt gttggccatg aaggaaaate acccagaatg ettetgcaag atactgaaaa 1260 ttetecactg catggaccet qgtgaqtggc ttecccaqae qqaqcactqt qtecatetqa 1320 ccccaaaqqa qttcttqatc tggacgatqq atattqcttc caatqaaaqa tctqaaattc 1380 agagtgtage tetgagaett gettecaaag teatttecea ceacatgcag acatgtgtgg 1440 agaacaggga attgataget getgagetga agcagtgggt teagetggte atettgteat 1500 gtgaagacca tetteetaca gagtetagge tggccgtcgt tgaagteete accagtacta 1560 caccactttt cctcaccaac ccccatccta ttcttgagtt gcaggataca cttgctctct 1620 ggaagtgtgt cottaccott ctgcagagtg aggagcaagc tgttagagat gcagccacgg 1680 aaaccqtqac aactqccatq tcacaaqaaa atacctqcca qtcaacaqaq tttqccttct 1740 qccaqqtqqa tqcctccatc gctctggccc tggccctggc cgtcctqtgt qatctqctcc 1800 aqcaqtqqqa ccaqttggcc cctggactgc ccatcctgct gggatgqctq ttqqqagaqa 1860 gtgatgacct cgtggcctgt gtggagagca tgcatcaggt ggaagaagac tacctgtttg 1920 aaaaaqcaqa agtcaacttt tgggccgaga ccctgatctt tgtgaaatac ctctgcaagc 1980 acctettetg tetestetca aagteegget ggegteecee aageeetgag atgetetgte 2040 accttcaaaq qatqqtqtca qaqcaqtqcc cacctcctqt ctcaqttctt caqaqaqctt 2100 ccaccagetg ctgagtttgt gaagacagtg gagttcacaa gactacgcat tcaagaggaa 2160 aggactttgg cttgcttgag gctgctggcc tttttggaag gaaaggaagg ggaagacacc 2220 ctaqttctca qtqtttqqqa ctcttatqca qaatcqaqqc aqttaactct tccaaqaaca 2280 gaageggeat gttgaagaaa atetggggga ttgggatggg ggtatgtgtg gattttteet 2340 ccactagate tocaggagac atottogaca tagattogag gattttatee cagagagaga 2400

<210> 355

<211> 2186

<212> DNA

<213> Homo sapiens

cggataaaga	cgctgggaga	ttgacatgca	tttcgaccaa	tagcattgca	gagaggcgta	60
tcatttcgcg	gatgttccaa	tcagtacgca	gagagtcgcc	gtctccaagg	tgaaagcgga	120
agtagggcct	tegegeacet	catggaatcc	cttctgcagc	acctggatcg	cttttccgag	180
cttctggcgg	teteaageae	tacctacgtc	agcacctggg	accccgccac	cgtgcgccgg	240
	gggcgcgcta					300
attcgcacgg	ctctggagcg	gcggctgcac	aaccagtgga	ggcaagaggg	cggctttggg	360
cggggtccag	ttccgggatt	agcgaacttc	caggccctcg	gtcactgtga	cgtcctgctc	420
	tgctggagaa					480
caactctttc	ccggcccggg	cgtccgggac	gccgatgagg	agacactcca	agagagcctg	540
gcccgccttg	cccgccggcg	gtctgcggtg	cacatgctgc	gcttcaatgg	ctatagagag	600
aacccaaatc	tccaggagga	ctctctgatg	aagacccagg	cggagctgct	gctggagcgt	660
ctgcaggagg	tggggaaggc	cgaagcggag	cgtcccgcca	ggtttctcag	cagcctgtgg	720
gagegettge	ctcagaacaa	cttcctgaag	gtgatagcgg	tggcgctgtt	gcagccgcct	780
ttgtctcgtc	ggccccaaga	agagttggaa	cccggcatcc	acaaatcacc	tggagagggg	840
agccaagtgc	tagtccactg	gcttctgggg	aattcggaag	tetttgetge	cttttgtcgc	900
gccctcccag	ccgggctttt	gactttagtg	actagccgcc	acccagcgct	gtctcctgtc	960
tatctgggtc	tgctaacaga	ctggggtcaa	cgtttgcact	atgacettea	gaaaggcatt	1020
tgggttggaa	ctgagtccca	agatgtgccc	tgggaggagt	tgcacaatag	gtttcaaagc	1080
ctctgtcagg	cccctccacc	tctgaaagat	aaagttctaa	ctgccctgga	gacctgtaaa	1140
gcgcaggatg	gagattttga	agaacctggt	cttagcatct	ggacagacct	cttattagct	1200
cttcgtagtg	gtgcatttag	gaaaagacaa	gttttgggtc	tcagcgcagg	cctcagttct	1260
gtataggcaa	tgctgtgtta	ttacttgaat	atagaatata	tagtttacaa	aatgaaaatt	1320
ccaatgttct	caccaaatat	atgccttcgt	gtgtccaaag	tataattatt	ttagatgcta	1380
attttgaata	gtttattaaa	cagttataaa	tatgcaaagt	agctggcatg	tagtgtcacg	1440
	atagaggaag					1500
agtttgcttt	ttaatagaag	gcccatttgt	aagaatgttg	aaaatatgtg	taccgtttaa	1560
agaaaaagca	gctttaaagt	gacaaacaaa	ataccctttt	tcttttagta	tgggttattt	1620
ttctaggttt	totgtccctc	cctcagtagt	gaagagtttt	ctttattcct	ggcagtgtca	1680
ggaatattgg	tttgaaaagc	tgttggccta	tctggagttt	ggccttgtta	acctagtatt	1740
ctaaccagtt	aaccagcctt	agtatgcatt	aaaattgtat	tgttcagaaa	gtttgtttct	1800
cattttctgc	aaattcttac	tttgaaaatg	aatcaccaca	tagtatgtcc	ctttaaagca	1860
ttgacgcaca	gacaaatgtt	taaagcacag	taaatacaaa	tatatgcctt	tggatattaa	1920
attaatgctt	gatgataaaa	gaatcaaact	tttttttt	tgaaagggag	tctcgctttg	1980
tcacccaaac	tggagggcag	gggggggatc	actgttaagg	gcaacctttg	cctcccagga	2040
tcaagcaatt	ttgactcacc	ctcccaagta	gctgggatta	caggggcagg	ccaccatgcc	2100
cggctaattt	tttgtatttt	tagtaaaaac	ggggtttaac	catgctggcc	aggetggtet	2160
caaacacctg	accttgggat	cagtac				2186

<210> 356 <211> 1142 <212> DNA <213> Homo sapiens

<400> 356 atteacatet tatteageat caaagaatte acacatgaga gtaagcacat gaatgtaatg 60 aatgtggaaa agctttcagt caaacctcat gccttattca qcatcacaaa atqcataqqa 120 aagagaaatc gtatgaatgt aatgagtatg agggcagttt cagtcatagc tcagatctta 180 tcctgcaaca agaagtcctc accagacaga aagcctttga ttgtgatgta tgggaaaaga 240 actocagtea gagageacat etagtteaac atcagageat teataceaaa gagaacteat 300 gaatgtaatg aagatgggaa gatatttatc aaattcaggc ttcattcagc atctgagagt 360 tcacaccagg gagaaatcat gtatgtactg catgtggtaa agccttcagt catagctcag 420 ccattgetca geatcagata atteacacca gagagaaacc etetgaatgt gaegaatgaa 480 gaaaaggtat tagtgttaaa ctcttaatcg actcctgcaa atctatacca gtgagaaatc 540 ttacaaatgt attgaatgtg gcaaattttt catgctatta gtattttcat accttagtca 600 catttggaga attcacatgg gaataaaatt ccattgctgc aatgaatgtg aaaaagccat 660 cagtcaaaga aactaccttg tttagtatca aattcacgcc atgcaaaaag attataaatg 720

```
taataagoat gtatgtgtg gaggagatte agtoataace caaogeteat teaacateaa 780 agsatttata cetaagagaa ettatttgg tgtagtaaat ggcagatett teaataggag 84 tetaactagt ettaactagt ettaactagt ettagtagata etgaagaataa tggaagaaaa 590 atggaaaaaa tegacacaca attteagget ttaccaaca tegaaataat ggaagaaaa 960 tegtgtagatta tttgtttatg aaattgtaa tacatagtee caatetttt cattgcaca 1020 aaatetaagg ttgactggt aaatggaaga cattttete atggagttee tttattaat 1880 atgtatteta agtaggteg tttatttta cttttttatt ataatttga tattaaaaag 142 aa
```

```
<210> 357

<211> 3167

<212> DNA

<213> Homo sapiens

<220>

<221> misc_feature

<222> (1)...(3167)

<223 n = a,t,c or g
```

<400> 357 ggaattcgcg agcgcagggc gcatgactgg caggcagctc cacctgcagc cctggtgccg 60 gatecactag gtgaagecag etgggeteet gagtetggtg gggacgtgga gagtetttat 120 atctagctca gggattataa acacaccaat cagcaccetg tgtctagctc aaggtttgtg 180 agtgeaceaa tegacaetgt atetagetge tetggtgggg cettggagaa cetttatgee 240 tagetcaggg attgtaaata caccaatcag caccetgtgt ttagetcaag gtttgtgaat 300 geaceasteg acactetgta tetagetgee etgatgggga egtggagaac etttgtatet 360 ageteaggga ttggaaaege accaateage geeetgaega aacaggeeae teggetetae 420 caatcagcag gatgtaggtg gggccagata agagaataaa agegggetge cegagecage 480 attggcaacc cgctcgggtc cccttccaca ctgtggaagc tttgttcttt cgctctttgc 540 aataaatett getaetgtte actetttggg tecacactge ttttatgage tataacacte 600 accgcaaagg totgcagett cactootgaa gccagogaga ccacaagccc actgggagga acgaacaact ccaggcgcqc aatgaacaac tccaggcgcg ccgccttaaq agctgtaaca ctcaccgcga aggtctgcaq tttcactcct aagccagcga gaccacgaac ccaccagaag 780 quagaaactc caaacacatc tgaacattag aaggaacaaa ctccagatgc gccaccttaa gagetgtaac actcaccgcg agggtccacg gettcattet tgaagtcagt gagagaccaa gaacccacca attooggaca cattttggcg accatgaagg gactttcgcc tattgccaag oggtgagaca atogotgago agtgagacca teacotattg cogagoggtg agaccattgo 1020 ctatogccaa gcaaatogag gccatcaagc tacagatggt cttacaaatg gaaccccaaa tgagttcaac taacaacttc taccgaggac ccctggactg accagctggt cctggcactt 1140 cocctggcct agagagttcc cctctgaagg acactacaac tgcaaagccc cttcttcgcc 1200 cctatccagc aggaagtagc tagagcagtc ateggccaaa ttcccaacag cagttggggt 1260 gtcctgttga ttgaggggtg acagcatgct ggcagtcctc acagccctca ctcgctcgct 1320 cactetegge acctectetg cetgggetee cactttggea geacttgagg agecetteag 1380 ctctgtatct agctactctg atgggtcctt ggagaacctt tatgtctagc tcagggattg 1440 taatacacca tcagcaccct gtgtctaget caggtttgtg aatgcaccaa tggacactet 1500 gtatctagct actetggtgg ggccttggag aacettgtgt caacactctg tatctaacta 1560 acctggtggg gatgtggaga accttgtgtc tagctcaggg atgtaaacgc accaatcagt 1620 gccctgtcaa accactcggc tctaccaatc agcaggatgt gggtggggcc agataagaga 1680 ataaaaqcag gctqcccqaq ccaqcaqtqq caacccqctc aqqtcccctt ccacactqtq 1740 gaagettigt tettitigete titigeaataa atettigaet geteaetett tiggiteeeca 1800 ctgettttat gagetgtaac acteactgeg aaggtetgea gettcactee tgagecagtg 1860 aaaccatgaa cccaccagaa ggaagaaacg ctgaacacac ctgaacatca gaagaaacaa 1920 actecagacg egecacetta agagetggaa caettacege aagggteegt ggetteatte ttgaagtcag tgagaccaag aacceeccaa tteeggatac aatategaca aaacatgcat 2040 ctttgatgtc tgatagttac agagagaaga aattagttcc tgtggtttac ceccattcta 2100

2160

geactecete ettecagtaa tteetggaag gagggagtge accaategae actetgtate

tatctactct	ggtggggcct	tggagaacct	ttatgtctag	ctcagggatt	gtaaatgcac	2220
	tetgtateta					2280
	ttgtgaatgc					2340
	ttatgtcgac					2400
	ctcagggatt					2460
	atcagcagga					2520
	tggcaacccc					2580
	ataaatcttg					2640
	ccgcgaagat					2700
	cgaacaactc					2760
	tcactcctga					2820
	aacatcagaa					2880
	ggtccgcggc					2940
	accetgtete					3000
	teeggetaet					3060
	gtgagccaag				agagtgacat	3120
tetgtetean	aaaaaaaag	aaaaaaaccc	attggttaaa	aacaaaa		3167

<210> 358 <211> 4747 <212> DNA <213> Homo sapiens

<400> 358

ttttttttt ttgaattaat tgatgaggtt tatttgattg tctttcttat aaaatacatt 60 aaaaatactg cttttaactg taggcacaca attaaaacaa atgtaaacct atgtttaatt 120 taaaatatat taaaatgatt taataaaggt cttttattat tttacacatc aaatttcatg 180 caatcagtac tccactgaag gagaaaagga ttatgaaaaa acaatgaaag cacagggtag 240 gaaaataaac aacacaaaag actaattetg gattttttt etgtgteett aataceetgt 300 gctgtctttg acaacaaaga tgccttactt atgtgattca gaggcccgga agtgaaaaaa 360 atacaagtag ttaatgaata atgcatatgt tcatagcaat ggtcaaatta tactgtttcc 420 taatggatac catttttctt tatcgagtgg gacactacag agtcggatgt taattgctcc 480 cacaaataca gttttactct tcacaataag cattaagaca tgtccttgga gctctgtgac 540 ttcatcatat actacaattt cattgtaagt ggggtccgta cattttggaa cagattttgt 600 tttcctccta cgaacttcac tgggatatgg taaaagataa aattcaacat gtgcactggg 660 cgcagagcca tctgggagat gaatgttttt catgtgtttc actagtatgg tcagcttcac 720 atcetegtag gatatgacta actgeacett aggettettg tetggaaact teteacetag 780 gtacacaggt gatgattett caactgtttg ttgcccagcc tcagagagga aaaagctaag 840 tacacaatca ctgtttgtaa cttcatgtga tacatttaat atctgttcca tgtaatgatt 900 tagatetetg aatettetgt gatetgaatt tgtaaaaggt aggtgeeace aatgaggaaa 960 ctctgggaga gtcagtgatg caaactgctt ctgaagttgg ctgtgaagtt ttgaaaactg 1020 ctcaaatgat ttttctgtca ggcttgtttc gttgttgctg tgtgtcacct ggatcagata cagattactg gatttcttgc tgaaccctaa aattgttgct ctttcaatcg acctagttgt actcagcaaa caggattcct gaggaaaagt ctgtgaagta gatttggcag ggcttatggc tgacatttgt gcaagtgtgt ggatcaagtt attcaattta acagggaaac actccagact tteetttatt ttettggtaa aatgaettgt tgetteeagg tetgtgtett gtggaegaag attattatac acatatttca ggtcttgaaa teceaettag eteaggeagt eeetgeatac 1380 agcatcattt cccagcaggt tccaagagca gttggctgtg ctttctgata atattataag 1440 cacgacagca aagttcccac aaaatcttga aaatgctgtg ggtttttccc caccctctgt 1500 aataaagtat teecatetet gaagtaaaaa tgaaaggage teggteeett tttateeete 1560 caaatgtttg tgcatgacct aagaattttc caaagtcaat atgaaacatg tggcccgact ttgtcagcat gatattatca ttgtgacggt cacatactcc caggatgaat gttaccacac 1680 accagccage acaggagtag aaaaagttee teaaggeett tteataatet geetttaagt 1740 ggttgtgctg actgaaccac tttttaatgg tattttcttt caatggtcct atcagtccag 1800 aatggcgatg aatctttgct agggtcacag catcaggtac catctgcacc aatcgttggt

cttttcctgt ggatagacat ctataaatga tcatttgcat atccaagcct tcctgcagcc

1860

1920

aaatattgtc	catcacttga	ataagctgca	gaacaagcat	atcctgacga	agatcatctc	1980
cagccttaaa	aataatgetg	atgtttttgc	ccatcagatt	agcattgatg	aaagtaatct	2040
tcaatggcaa	agcattagat	gtaaaatatg	aacatgcatc	gtgatcaatc	ccttttatac	2100
atagggcagg	gttcagagga	agatgacaag	tatttacatc	ttgaaagaac	tettetagte	2160
tgccaatttc	tttcttcagt	acctcctgtc	tttgatggtc	actggcagac	ttgactcttt	2220
ccccaatatc	teccagaatt	ttgataagtt	tetgeteett	ggaaaactca	tcattcaagg	2280
ctttacctgc	acagaattgg	agagcagcta	gtagettetg	ataccagett	ttaaaataag	2340
cttcattttc	tgcattttt	agcagccagt	aaagacgatg	ggcaacctgg	atgetetgea	2400
aggagcggtg	gagtagaagt	tgcactaaag	gactctcaag	gttccattca	aacttgacag	2460
cctgaactag	ctgtgggaga	tattccagta	gttcatcatt	caagaggttg	tctaattgtt	2520
gaactgccac	tttacgaatt	tcttgatctg	gaaaactgga	agtcaaaagc	ccaagagcct	2580
ctaaaggttg	agaaaatgtc	catcttctca	aaatggtatg	catttctgaa	acagtccttt	2640
catcccatcc	aggggcacta	cccaggacta	aaggaaggga	gcagttttca	ttattgcagt	2700
agaagcgata	aaaccataaa	tatcttttct	tttcttcaga	gagtagtagg	ggagtctgtt	2760
tctgtgaaag	tctggcaata	tgttttatac	actcctttag	tggctcttca	agattacttc	2820
tattctcttc	agaatcaggt	ttcatatact	cccacccagt	agctggaaaa	tcaatctgca	2880
gggtcaccgg	ggatggctga	cttacatccc	acactcctgg	agttatcatt	tctacgggag	2940
gctcactctg	taatgtcatg	ctgaacagca	tagacccgag	aatggatttt	tcttttggaa	3000
acagtggaag	acaagtccac	gccagtaaat	ttgcattgtt	ggttgcacag	gcaatcccaa	3060
			gaagtgactt			3120
tectgtgcac	ccaggtttct	ggaatgttgt	gtgctgcata	cactgtgaag	ctgaggtggg	3180
aaggaagccc	gggatttaga	taggaagtgc	atctaggtac	atttacaggc	tgaaaatctg	3240
cataaaagct	gttacagtag	acattgatta	gctggtagat	ggatgtggat	agttcagttg	3300
ttaccttctc	tatcaagcct	tttgctgaag	tctctgaact	ttgataaaaa	ttctctcctt	3360
ttctctgaag	aattagactt	agttcattta	ctgcatctgt	aatttgtttg	gtttccacac	3420
accctagaac	actgcatatt	tttttaactt	cttcaataat	attatacacg	ttttcctggg	3480
ttttcaatag	gtatttcagg	tggaagtcat	attttctgat	gagtgttaag	agacattgtc	3540
tggatacttt	ccaaatatgc	ataaattcta	gaagttgatt	cagataaaac	tgactgtggt	3600
cctcttcatg	ctttcgagat	agctttcctg	gagetteeet	acttttctgc	aggtggagct	3660
gaataacaga	tttatctttt	tgaaacattt	tgtggctccc	caaacagtgg	tegttttgta	3720
aaaattcttc	agagccccat	acacttagaa	tatgatcttt	ggggagtagc	tggtcatttg	3780
tgcaaaaatg	cagaatttct	gcaattagat	ctttgacaag	ataattagca	catggcataa	3840
aatgaagagg	ttgtgttgag	ttatcaataa	aaatatgtat	attaaacttg	gtcttagaaa	3900
agagctgata	cggaaatgct	gtagtagtgc	tccagatett	cccagaattg	aaattaacat	3960
cagctgcatg	atatetttet	ctgattttt	ttactttgtt	gcaaaaagag	gccagactcg	4020
tattgctgct	ttgaggtact	tccactagct	gaatggaaca	acctattgac	tctatattct	4080
tctgccatgt	actttcccac	attccgggtt	gaagagagcc	tttcaaaagc	atcaaagatg	4140
gttccacaat	gttcacatgt	ccactccttt	tattctcttc	tttcggcatg	aagtcacttg	4200
agaaggatga	atttgttgga	ggaatgctac	tttcaaatcc	tatatggtag	ttatgatttt	4260
cattttctaa	ttctttctct	agattaattt	tatccaaact	tgtgaatgat	ggagctaaaa	4320
tactgaatct	ggaatcatca	gcaccatgat	gttttcctat	ggggcttccc	caggagcatt	4380
ctttattcgt	attttgaggt	tttggtaaca	cagaaggact	aaaaccaatt	gctggtgctt	4440
tgctaacttg	atgccaggag	agttcacggc	ttttagaagt	gaattcattc	aaggatattt	4500
ggtgtgcttc	atttaatgaa	tgccctgttg	agtcccattt	tggtgcagtg	ggcacaaaaa	4560
aggtgttttc	atcaatttca	ctctcgtagt	gtggaatttt	gccactgatc	tcatctacta	4620
			aagaatgggg			4680
	atactgcttt	tcgtgtgatt	cattaggatt	tggatccgtt	tgccaagaat	4740
atgccat						4747

165

<210> 359

<211> 679 <212> DNA

<213> Homo sapiens

ctgcttccag	acatcatcct	agcacttaag	gagctggaag	gttgaacaga	aattettett	120
ggaatccttg	aaggtttaga	ctccattctt	aaagattgga	ttctgaatat	caggtaacat	180
ttttatttgg	aatatatgta	tacagccttt	ttcaaaatcc	ctagggccac	tettttgggg	240
gtatttaaaa	aatgtgttag	ctggatctga	ggcatcctgt	aatcaaaacc	aatatatatg	300
tagcaaaatg	aataacattt	ttcaaacttt	ttggacttca	gaattatgga	taacagattg	360
taacctcata	taaaatcata	cttttgcgct	ggggaacggt	cgtcacgcct	gtaatcccag	420
cactttggca	ggctgagact	ggcagatcat	ttgaggtcag	gagttcgaga	ccagcctggc	480
caacatgacg	aaaccccgtc	tcgactaaaa	atacaaaaaa	attagctgga	catggtggca	540
cccatctcta	ctcccagcta	cttgggaggc	cgaagaggga	ggattgcttg	aacccaggag	600
gtggaggttg	cagtgagctg	agatcatgag	actgcactcc	agcctgggtg	acagagtega	660
gactccatct						679

<210> 360

<211> 2017 <212> DNA

<213> Homo sapiens

<400> 360

```
tttegtgegg gagateagag gteeegeegt eeegegeetg aceteggetg aggacaggea
                                                                      60
cegecatggg ccacacgcac acagecegga gttgeagegg aceggeagag attacageet
                                                                     120
ggactacetg coetteegee tatgggtggg catetgggtg getacetttt geetggtget
                                                                     180
ggtggccaca gaggccagtg tgctggtgcg ctacttcacc cgcttcactg aggaaggttt
                                                                     240
ctgtgccctc atcagcctca tcttcatcta cgatgctgtg ggcaaaatgc tgaacttgac
                                                                     300
ccatacctat cctatccaga agcctgggtc ctctgcctac gggtgcctct gccaataccc
                                                                     360
aggeccagga ggaaatgagt ctcaatggat aaggacaagg ccaaaagaca gagacgacat
                                                                     420
eqtaageatg gacttaggee tgatcaatge atecttgetg eegecacetg agtgeaceeg
                                                                     480
gcagggaggc caccetegtg gccetggetg teatacagte ccagacattg cettettete
cottotocto ttoottactt otttottott tgetatggcc etcaagtgtg taaagaccag
                                                                     600
cogettette ecetetgtgg tgegeaaagg geteagegae tteteeteag teetggeeat
cotgetegge tgtggccttg atgettteet gggcctagec acaccaaage teatggtace
cagagagttc aagcccacac tccctgggcg tggctggctg gtgtcacctt ttggagccaa
cccctggtgg tggagtgtgg cagctgccct gcctgccctg ctqctgtcta tcctcatctt
catggaccaa cagatcacag cagtcatect caaccgcatg gaatacagac tgcagaaggg
agotggotto cacctggaco tottotgtgt ggotgtgotg atgotactca catcagogot
                                                                     960
tggactgcct tggtatgtct cagccactgt catctccctg gctcacatgg acagtcttcg
                                                                    1020
gagagagage agageetgtg cccccgggga gegeeccaac tteetgggta teagggaaca
                                                                    1080
gaggetgaca ggeetggtgg tgttcatect tacaggagee tecatettee tggeacetgt
                                                                    1140
getcaagtte attecaatge etgtgeteta tggcatette etgtatatgg gggtggcage
                                                                    1200
geteageage atteagttea etaatagggt gaagetgttg ettgatqeea qeaaaacace
                                                                    1260
agccagacct gctactcttg cggcatgtgc ctctgaccag ggtccacctc ttcacagcca
                                                                    1320
toagetttge cetgtetggg getgetttgg gataatcaag tetaceeetg cagecatcat
                                                                    1380
ettececete atgttgetgg geettgtggg ggtcegaaag geectggaga gggtttttte
                                                                    1440
accacaggaa ctcctctggc tggatgagct gatgccagag gaggagagaa gcatccctga
                                                                    1500
gaaggggctg gagccagaac actcattcag tggaagtgac agtgaagatt cagagctgat
gtatcagcca aaggetecag aaatcaacat ttetgtgaat tagetggagt aggagtetgg
                                                                    1620
gagtggagac cccaggaaac agcatgaggt gcttactcag gaagtcagga catttttggc
                                                                    1680
ctttggctta acttccagat gctcagtcgg cttggggaag gactgaaggg cagctgccaa
                                                                    1740
gaceteagtt accteetgae etgagggtgg agagtggeag gaageaagea tgtttgetgt
                                                                    1800
geacttagga aaggetggtg agecagaggg actgateagg ecceatteac tetetaetea
                                                                   1860
ttaaaaaggtc ctgagccacg aagcgcttcc cattttgaac tttctgtcct cacagattct
gtttgacaga atctaagggc catcagggaa ctcttttcat cttgcaaaga gaaaaagcca
                                                                   1980
gtctttccag aataaatatt catctgtttg aaataaa
                                                                   2017
```

60

2820

2880

2900

```
<210> 361
<211> 2900
<212> DNA
<213> Homo sapiens
```

<400> 361 atggggetea aggegegeag ggeggeggg geggetggeg geggeggega egggggggege qqaqqcqqcq qqqcqctaa cccaqccqqa qqqgacqcgq cgqcqqccqg cqacqaqqag 120 cqqaaaqtqq qqctqqcqcc cqqcqacqtq gaqcaaqtca ccttqqcqct cqqqqccqqa 180 geegacaaag aegggaceet getgetggag ggeggeggee gegacgaggg geageggagg 240 according quatogquet cottquesag according quequesagt caagagaaac 300 aacgccaagt accggcgcat ccaaactttg atctacgacg ccctggagag accgcggggc 360 toggcgctgc tttaccacag cottggtgtt cctgattgtc ctaggggtgc ttgattctgg 420 ctgtcctgga ccacattcaa ggagtatgag actgtctcgg gagactggct tctgttactg 480 gagacatttq ctattttcat ctttggagcc gagtttgctt tgaggatctg ggctgctgga 540 tqttqctqcc qatacaaaqq ctqqcqqqqc cqactqaaqt ttqccaqqaa qcccctqtqc 600 atgitggaca tettiqiqet gattgeetet gigecagigg tigetgiggg aaaccaagge 660 aatgttetgg ceacetecet gegaageetg egetteetge agateetgeg catgetgegg 720 gatggaccgg gagaaggtgg cacctggaag cttctggggc tcagccatct gtgcccacag 780 caaagaactc atcacggect ggtacatcgg tttcctgaca ctcatccttt cttcatttct 840 tgtctacctg gttgagaaag acgtcccaga ggtggatgca caaggagagg agatgaaaga 900 ggagtttgag acctatgcag atgecetgtg gtggggeetg ateacactgg ccaccattgg 960 ctatggagac aagacaccca aaacgtggga aggccgtctg attgccgcca ccttttcctt 1020 aattggcgtc tocttttttg cocttccagc gggcatcctg gggtccgggc tggccctcaa 1080 ggtqcaggag caacaccgtc agaagcactt tgagaaaaagg aggaagccag ctgctgagct 1140 catteagget geetggaggt attatgetae caaccecaae aggattgace tggtggcgae 1200 atggagattt tatgaatcag tegtetettt teetttette aggaaagaac agebggagge 1260 agcatccage caaaagctgg gtctcttgga togggttcgc ctttctaatc ctcgtggtag 1320 caatactaaa qqaaaqctat ttacccctct qaatqtaqat qccataqaaq aaaqtccttc 1380 taaagaacca aagcotgttg gottaaacaa taaagagogt ttoogcacgg cottoogcat 1440 gaaagcctac gctttctggc agagttctga agatgccggg acaggtgacc ccatggcgga 1500 agacagggge tatgggaatg acttececat cgaagacatg atecceacce tgaaggeege 1560 categgages of cagaatte tacaatteeg tetetataaa aaaaaattea aggagaettt 1620 gaggeettae gatgtgaagg atgtgattga geagtattet geegggeate tegacatget 1680 ttccaggata aagtacettc agacgagaat agatatgatt ttcacccctg gacctccctc 1740 cacqccaaaa cacaaqaagt ctcaqaaaqg gtcagcattc accttcccat cccagcaatc 1800 teccaggaat gaaccatatg taggecagae catecacatt cagaaatteg aagaccaaag 1860 qcattgatgg gggaagtttg ttaaaagttt gaaaggacag gtttcaggga ctggggagga 1920 agotgqactt cotcqtqqat atqcacatqc aacacatqqa acqqttqcaq qtqcaqqtca 1980 cogaqtatta cocaaccaaq ogcacctcct coccaqctqa aqcaqaqaaq aaqqaqqaca 2040 acaggiatto cgattigada accatcatot gcaactatto tgagacagge coccoggado 2100 caccetacag ettecaccag gtgaccattg acaaagtcag cccctatggg ttttttgcac 2160 atgaccetgt gaacctgcc cgaggggac ccagttctgg aaaggttcag gcaactcctc 2220 ettectcage aacaacgtat gtggagagge ccaeggteet geetatettg actetteteg 2280 actocogagt gagetgecae teccaggetg acetgeaggg cecetaeteg gaecgaatet cccccggca gagacqtagc atcacgcgag acagtgacac acctctgtcc ctgatgtcgg tcaaccacga ggagetggag aggtetecaa gtggetteag cateteccag gacagagatg 2460 attatgtgtt eggeeceaat ggggggtega getggatgag ggagaagegg tacetegeeg 2520 agggtgagac ggacacagae acggacecet teacgeccag eggetecatg ecetetgteg 2580 2640 tecacagggg atgggattte tgatteagta tggacccett ccaataagce catttaaaag aggicactgg ctgacccetc cttgtaatgt agacagactt tgtatagttc acttactctt 2700 acaccegacy cttaccageq qggacaccaa tqqctqcatc aaatqcatqc qtqtqcqtqq 2760

tggccccacc caggcagggg cttcccacag cctcttcctc cccatqtcac cacaacaaag

tgcttccttt tcagcatggt ttgcatgact ttacactata taaatggttc ccgctaatct

cttctaggat aaaaaaaaaa

```
<210> 362
<211> 5433
<212> DNA
<213> Homo sapiens
```

<400> 362 cggacgcgtg ggatcattga atttgaccca aagtatactg ccttcgaagt ggaggaagat 60 gttgggctga tcatgatccc agtggtgagg ctacatggaa cttatggcta tgtgacagct 120 gattteatet eteagagete etetgeeagt eeeggaggtg ttgattaeat tttgeatgge 180 agtacagtca cotttcagca tgggcaaaac ttaagtttta taaatatoto catcattgat 240 gacaatgaaa gtgaatttga ggagcccatt qaaattctac tcactgqagc tactqqaqqa 300 geggteettg ggegeeacet agtgageaga ateataatag etaagagtga etetecettt 360 ggagttataa ggtttctcaa tcaaagcaaa atttctattg ctaatcccaa ttccacaatg 420 attitateae tqqtqctqqa qcqqactqqa qqactcttqq qaqaqattca qqtqaactqq 480 gagacagtag gacccaactc tcaagaagcc ttactgccac agaatagaga cattgcagac 540 ccaqtqaqcq qqttqttcta ttttqqaqaa qqaqaaqqaq qaqtqaqaac cataattctq 600 acaatctatc ctcatgaaga aattgaagtt gaagagacat teattattaa acttcatctt 660 gtgaaaggag aagctaaatt agactccaga gctaaagatg ttacattaac catacaagag 720 tttggtgacc caaatggagt tgttcagttt gctcctgaaa ctttgtctaa gaagacttat teagageete tggetetgga agggeeeetg eteattacet tetttgteag aagagteaag 840 ggcacctttg gagagattat ggtttactgg gaattaagta gtgagtttga cattactgaa 900 gactttettt ccaccagtgg atttttcacc attgctgatg gagagagtga agctagettt 960 gatgttcatt tgctaccaga tgaggtacct gagatagagg aagattatgt gatccagctt 1020 gtttctgtag agggaggagc cgaactggat ctggagaaga gtatcacatg gttctctgtt tatgcaaatg atgacccaca tggagtattt gccctgtatt cggatcgcca gtcaatactt 1140 attgggcaga accttattag atccatccaa attaacataa cccggcttgc tggaacattt 1200 ggagatgtgg ctgttgggct tcgaatatca tcggatcata aagaacagcc gattgttacc 1260 gaaaatgcag agaggcagct ggtggtcaaa gatggtgcca catataaagt ggacgtggtg 1320 ccaataaaga atcaggtott cctatcactg ggetotaatt teaetttgca actggtgact 1380 gtgatgettg teggtggaeg tttetatgga atqeeaacaa ttetteagga aqeaaaatet 1440 gotgtoctto cagtototga gaaagotgoo aattotoagg toggatttga atcoactgot 1500 tttcaactca tgaacatcac tgctggcaca agccacgtta tgatttctag gagaggcaca 1560 tatggagete teteggttge etggaceaet ggatatgete etgggttaga aatteetgaa 1620 tteattgttg ttggcaacat gaccccaaca ctggggagcc ttteattttc ccacggtgaa 1680 caaaggaaag gagttttcct gtggacgttt cctagccctg gttggccaga ggcctttgtt 1740 etteacetat caggagtgea gageagtget cetggeggag etcaacteeg atcaggttte 1800 attgttgctg aaattgaacc aatgggcgtc ttccaatttt ccactagctc aagaaatatc 1860 atagtgtcag aagatacaca gatgatcaga ttacatgtac aaagactatt tgggttccac 1920 agegatetta ttaaagttte ttatcagace aetgeaggaa gegeeaagee aetggaagat 1980 tttgagcctg ttcagaatgg ggaactgttt tttcaaaaat tccaaactga ggttgatttt 2040 gaaataacca ttattaatga tcagctttct qagatagaaq aattttttta cattaacctt 2100 actteagtag aaattagggg attacaaaag tttgatgtta attggageec acqeetgaat 2160 ctagatttca gtgttgcagt gattacaata ttggataatg atgacctggc aggaatggat 2220 attteettee ceqagacaac tgtggetgta geagttgaca caacteteat teetgtagaa 2280 actgaatcca ccacatacct cagcacaagc aagacgacta ccattetgca gccaaccaac 2340 gtggttgcca ttgttactga ggcaactggt gtatctgcca tccctgagaa acttgtcacc 2400 cttcatggca cacctgctgt gtctgaaaag cctgatgtgg ccactgtaac tgccaatgtt 2460 tecatteatg gaacatteag cettgggeea tecattgttt atattgaaga ggagatgaag 2520 aatggcacat tcaacactgc agaagttctt atccgaagaa ctggtgggtt tactggcaat 2580 gtcagcataa cagttaaaac tttcggtgaa agatgtgctc agatggaacc aaatgcattg 2640 ccctttcgtg gtatctatgg gatttccaac ctaacatggg cagttgaaga agaagacttt 2700 gaagaacaaa ctcttaccct tatattccta gatggagaaa gagaacgtaa agtatcagtt 2760 caaattttgg atgatgatga geetgagggg caggaattet tetacgtgtt tetcacaaac 2820 cctcaagggg gagcacagat tgtggagggg aaggatgata ctggatttgc agcttttgcc 2880 atggttatta ttacagggag tgaccttcac aatggcatca taggattcag tgaggagtcc 2940 cagagtggac tagaactcag ggaaggaget gttatgagaa gattgcacct tattgtcaca 3000 agacagocaa acagggoott tgaagatgto aaggtotttt ggogagtoac acttaacaaa 3060 acagtegteg tgctccagaa ggatggggta aacctgatgg aggaacttca gtctgtgtca 3120 gggaccacaa cetgtacaat gggtcaaaca aaatgettta teageattga acteaaacea 3180

	cacaggttga					3240
	acaacagtgc					3300
caaagcettg	tgtattttc	tgtgggttct	cggctggcag	tggctcacaa	gaaggccact.	3360
ttaatcagtc	tgcaggtggc	cagagattct	gggacaggac	taatgatgtc	tgttaacttt	3420
	agttgaggag					3480
	attttgtgat					3540
actgtattgg	atgtcatcct	aacgccagag	acaggatett	taaattcatt	tcctaaacgc	3600
ttccagattg	tcctttttga	cccaaaaggt	ggtgccagaa	ttgataaagt	gtatgggact	3660
gccaacatca	ctcttgtctc	agatgcagat	t.cgcaggcca	tttgggggct	tgcagatcag	3720
	ctgtgaatga					3780
gtggccacag	aaaacacaga	tgaacaactc	agtgccatga	tgcatctaat	agaaaagata	3840
	gaaaaattca					3900
ctttgttctc	ttattaaccc	aaagcgcaag	gacactaggg	gattcagtca	ctttgctgaa	3960
ttgactgaga	attttgcctt	ttctctgctg	actaatgtta	cttgcggctc	tcctggtgaa	4020
aaaagcaaaa	ccatccttga	tagttgccca	tatttgtcaa	tattggctct	tcactggtat	4080
cctcagcaaa	tcaatggaca	caagtttgaa	ggaaaggaag	gagattacat	tegaatteea	4140
gagaggetac	tggatgtcca	ggatgcagaa	ataatggctg	ggaaaagtac	atgtaaatta	4200
gtccagttta	cagagtatag	cagccaacag	tggtttataa	gtggaaacaa	tetteetace	4260
	aggtattatc					4320
gacaatgagg	ttctctacag	gatttatgct	gctgagccta	gaattattcc	tcagacatct	4380
ctgtgtctcc	tttggaatca	ggctgctgca	agetggttgt	ctgacagtca	gttttgcaaa	4440
	aaactgcaga					4500
	ggactgacaa					4560
atatgtatct	caggtctttg	cttggctgtt	ctttcccata	tettetgtge	caggtactec	4620
atgtttgcag	ctaaacttct	gactcacatg	atggcagcca	gettaggtae	acagattetg	4680
tttctggcgt	ctgcatacgc	aagtccccaa	ctcgctgagg	agagctgttc	agctatggct	4740
	attacctgta					4800
ttctggtacg	tgctggtgat	gaatgatgag	cacacagaga	ggcgatatct	gctgtttttc	4860
	ggggactacc					4920
	agagcatgtc					4980
	atgctgcttt					5040
	tgttcatcca					5100
gtcttcagag	gaaggacaaa	tgctgcagaa	attccactga	ttttatatct	ctttgctctg	5160
	catggctttg					5220
	tcattttcaa					5280
	caacattttt					5340
	tacttacatg			aaggccttgg	ggttctatgt	5400
ttccttaaca	ctgaatgggc	tttccaagtg	cat			5433

<210> 363 <211> 3569 <212> DNA

<213> Homo sapiens

<400> 363 ageggeeggg gecaegatgg agegegaegg etgegegggg ggegggagee geggeggega gggcgggcgc gctccccggg agggcccggc gqqqaacqqc cgcgatcgqq gccqcagcca 120 cgctgccgag gcgcccgggg acccgcaggc ggccgcgtcc ttgctggccc ctatggacgt 180 gggggaggag ccgctggaga aggcggcgcg cgcccgcact gccaaggacc ccaacaccta 240 taaagtactc tcgctggtat tgtcagtatg tgtgttaaca acaatacttg gttgtatatt 300 tgggttgaaa ccaagctgtg ccaaagaagt taaaagttgc aaaggtcgct gtttcgagag 360 aacatttggg gaactgtege tgtgatgetg cetgtgttga gettgggaaa ctgctgttta 420 ggattaccag gggggacgtg cataggaacc aggaacatat atgggacttg caacaaattc 480 aggtgtgggt gagaaaaggt tgaccagaag cetetgtgce tgttcagatg actgcaagga 540 ccaggggcga ctgcctgcca tccaacctac agttcctgtg tgtccaaggt gaagaaaagt 600 tggggtagaa agaacccatg tgagagccat ttaatggagc ccacagtgcc ccagcagggt 660

			tcctttggat			720
acacacttgg	ggtggacttc	ttcctgttat	tagcaaacta	aaaaaatgtg	gaacatatac	780
taaaaacatg	agaccggtat	atccaacaaa	aactttcccc	aatcactaca	gcattgtcac	840
			caacaataaa			900
			atttaatcct			960
			caagtctggc			1020
agatgtggaa	attaacggaa	ttttcccaga	catctataaa	atgtataatg	gttcagtacc	1080
atttgaagaa	aggattttag	ctgttcttca	gtggctacag	cttcctaaag	atgaaagacc	1140
acacttttac	actctgtatt	tagaagaacc	agattcttca	ggtcattcat	atggaccagt	1200
			ggttgatggt			1260
tggtctgaaa	gagctgaact	tgcacagatg	cctgaacctc	atccttattt	cagatcatgg	1320
catggaacaa	ggcagttgta	agaaatacat	atatctgaat	aaatatttgg	gggatgttaa	1380
aaatattaaa	gttatctatg	gacctgcagc	tcgattgaga	ccctctgatg	tcccagataa	1440
atactattca	tttaactatg	aaggcattgc	ccgaaatctt	tettgeeggg	aaccaaacca	1500
gcacttcaaa	ccttacctga	aacatttctt	acctaagcgt	ttgcactttg	ctaagagtga	1560
tagaattgag	cccttgacat	tctatttgga	ccctcagtgg	caacttgcat	tgaatccctc	1620
agaaaggaaa	tattgtggaa	gtggatttca	tggctctgac	aatgtatttt	caaatatgca	1680
agccctcttt	gttggctatg	gacctggatt	caagcatggc	attgaggctg	acacctttga	1740
aaacattgaa	gtctataact	taatgtgtga	tttactgaat	ttgacaccgg	ctcctaataa	1800
cggaactcat	ggaagtctta	accaccttct	aaagaatcct	gtttatacgc	caaagcatcc	1860
			cttcacaaga			1920
ctgctcatgt	aacccttcga	ttttgccgat	tgaggatttt	caaacacagt	tcaatctgac	1980
			aactttaccc			2040
			ccagcaccag			2100
agacatctta	atgccccttt	ggacatccta	taccgtggac	agaaatgaca	gtttctctac	2160
ggaagacttc	tccaactgtc	tgtaccagga	ctttagaatt	cctcttagtc	ctgtccataa	2220
			gagttacggg			2280
			agctttgctt			2340
			ctttcatgac			2400
			tggtcctgtg			2460
			caaaaaagaa			2520
			ttttattggt			2580
			cctaggacac			2640
			gtggtgcatg			2700
			gagcaccgga			2760
			aaagagccag			2820
			gactgatatg			2880
			tatagtcctc			2940
			gccctcggtg			3000
			ttcctgttga			3060
			ggggaataaa			3120
gcctttctgc	ttctcttaaa	ggagaagtag	ctgtgaacat	tgtctggata	ccagatattt	3180
			gatgggcatt			3240
			ctatctttat			3300
			ttttcattgt			3360
			ttcaatcttt			3420
			ttaaattttt			3480
			gaggggacga	tctttgaata	tacttaccta	3540
rrataaaatc	ttactttgta	tttgtattt				3569

<400> 364

<210> 364

<211> 832

<212> DNA

<213> Homo sapiens

tccttctatg	cttattcgga	ggggcggcaa	ggcatgtttc	ccagttttta	agatettgee	60
ccccccata	atttatgagg	accgttctgt	gtccgggcat	cagtgatggt	gcccctgcat	120
ttcggggtgc	tctttggagg	gcgtgtttgt	tgaaaaacca	cccccaaccc	cctgcccgcc	180
ggtcccggac	ctggccacca	tggaaggtgc	tgcggatggt	ggatccgcgt	gccaggcggc	240
tacgatacca	tgatgggggt	gccaggctgt	gactggaggg	ggaggcaggg	ggcacccgtg	300
gggtgcctga	gctgttttct	ttcccatttg	gcaacagtga	cgggcgctca	gcccccgggc	360
gttctgtgca	aacgtaggtg	ttcctgcggg	tcatcatgct	aggagggagg	ttgttggggg	420
tgctcgtgct	gtccttccgc	cgctctggga	tctctgcctt	gttggggttg	tgggcgctgc	480
tgaccatggg	gctgaagggg	gggcagccct	cgactcccac	teccegeggt	gctgcagctc	540
gccttccggc	ctggcagccg	ctcctccttc	agctccgcct	cccccgtgct	cgtcgggctg	600
cgtttggggt	gcaggggtgc	aggggatggg	ccacctgggg	gagggggtac	cgtttagagc	660
tggcatcacc	acggaaaccc	agaactgact	ctgggggatc	gttggaacct	gagaatteet	720
cacgtgggtt	gcaatctctg	tgtgggccat	tetgacaata	tctgtcaaaa	ttacctcaag	780
attaccaacg	cacatatact	gacttagaaa	ctccaaatca	atgacatcat	gc	832

<210> 365

<211> 1321

<212> DNA

<213> Homo sapiens

<400> 365

cacacactgc accacagete teceacetet gaggeegagg agttegtete cegeetetee acccagaact acttccgctc cctqccccqa qqcaccaqca acatqaccta tqqqaccttc 120 aactteeteg ggggeegget gatgateeet aatacaggaa teageeteet cateceecea gatgccatac cccgagggaa gatctatgag atctacctca cgctgcacaa gccggaagac qtqaqqttqc ccctaqctqq ctqtcaqacc ctqctqaqtc ccatcqttaq ctqtqqaccc cotgaggate etgettacce agecagteat ectgaggtat agaccactat agaggagec agecetgaca getgggagee tgeggeteaa aaageagteg tgeggaggga getgggagga 420 tgtgctgcac ctgggcgagg aggcgccctc ccacctctac tactgccagc tggaggccag 480 tgcctgctac qtcttcaccg agcagctgag ccgctatgcc ctggtgggag aggccctcag 540 cgtggctgcc gccaagcgcc tcaagctgct tctgtttgcg ccggtggcct gcacctccct 600 cqaqtacaac atactqqtct actgcctgca tgacactcac gatgcactca acgtagtggt 660 geagetggag aageagetge agggacaget gatecaggag ceaetggtae tgeaetteaa 720 ggacagttac cacaacetge geetateeat ceacgatgtg eccageteec tgtggaagag taageteett gteagetace aggagateee ettttateae atetggaatg geaegeageg 840 gtacttgcac tgcaccttca ccctggagcg tgtcagcccc agcactagtg acctggcctg 900 caagetgtgg gtgtggcagg tggagggega cgggcagage tteageatea aetteaaeat 960 caccaaggac acaaggtttg ctgagctgct ggctctggag agtgaagcgg gggtcccagc 1020 cctggtgggc cccagtgcct tcaagatccc cttcctcatt cggcagaaga taatttccag 1080 cctggaccca ccctgtaggc ggqgtgccga ctggcqgact ctggcccaga aactccacct 1140 ggacagecat eteagettet ttgeeteeaa geecageeee acagecatga teeteaacet 1200 gtqgqaqqcq cqqcacttcc ccaacqqcaa cctcaqccaq ctqqctqcaq caqtqqctqq 1260 gactqqqcca qcaqqacqqt qqcttctttc acaqtqttcq qaqqctqaqt qctqaqqccq 1320 1321

<210> 366

<211> 777

<212> DNA <213> Homo sapiens

<400> 366 gggtccgctg cagggcaggt tcagcagcaa cagcagcggc gacaccagca gggaaaagtg 60 acagtgaaat acgatcgtaa ggagcttcgg aagcggctgg tgctggagga atggatcgtg 120 qagcaqctgq gtcaqctcta cggctgcgag gaagaagaaa tgccagaggt agaaattgac 180 attgatgatc tttttgatgc atacagtgat gaacagagag cttcaaaatt acaggaagct 240 cttgtagact gctacaaacc aacagaggaa tttatcaaag agctgctttc tcggataaga 300 ggcatgagga aactgagccc ctccgcagaa gaagagtgta tgattctgga acagggtgaa 360 actotocoag agatgaagaa agagtootgg gatttgtact toatgaagac ttttgtgaaa 420 gaataggtgt cettatgaac aacgtttttg tttttttttt ttettttttg ggggtaaagg 480 tgggggggtc tattagacat ttattcaaga gcgttctttt ttgggtttta aaggtttttg 540 ttaatqtaat atttaaatac caaaaatatc ttqactttaq ccacagccta cccagggttt 600 atcaaqqqaq qqqqaccctc aqqqaaqqqc cccccaqqt tqcqtttcct qcaqqqactc 660 aaatqttaat toocttatqa toocqqaaaa ataqtttttt tacaaqaaqt tqqqcaaaat 720 ttttttccta aagttqqaca ttqqactcaa ttqqcaaatt tttcaacctq qtatttt 777

<210> 367 <211> 2056 <212> DNA <213> Homo sapiens

<400> 367

aattatgtta gatggccggg tgcggtggct cacgcctgta atctcagcac tttgggaggc 60 cgaqatggaa gacgtcatag cacggatgca agatgaaaaa aatggaattc ctattcqtac 120 ggtcaaaagc tttctttcca agatacctag cgtcttctct ggttcagaca ttgttcaatg 180 qttgataaaq aacttaacta taqaaqatcc aqtqqaqqcq ctccatttqq qaacattaat 240 qqctqcccac qqctacttct ttccaatctc aqatcatqtc ctcacactca aqqatqatqq 300 caccttttac cqqtttcaaa ccccctattt ttqqccatca aattqttqqq aqccqqaaaa 360 cacaqattat qccqtttacc tctqcaaqaq aacaatqcaa aacaaqqcac qactqqaqct 420 cgcagactat gaggctgaga gcctggccag gctgcagaga gcatttgccc ggaagtggga 480 gttcattttc atgcaagcag aagcacaagc aaaagtggac aagaagagag acaagattga 540 aaqqaaqatc cttgacagcc aagagagagc gttctgggac gtgcacaggc ccgtgcctgg 600 atgtgtaaat acaactgaag tggacattaa gaagtcatcc agaatgagaa acccccacaa 660 aacacggaag tetgtetatg gtttacaaaa tgatattaga agtcacagte etacccacac 720 acccacacca gaaactaaac ctccaacaga agatgagtta caacaacaga taaaatattg 780 qcaaatacaq ttaqataqac atcqqttaaa aatqtcaaaa qtcqctqaca qtctactaaq 840 ttacacggaa cagtatttag aatacgaccc gtttcttttg ccacctgacc cttctaaccc 900 atggctgtcc gatgacacca ctttctggga acttgaggca agcaaagaac cgagccagca 960 gagggtaaaa cgatggggtt ttggcatgga cgaggcattg aaagacccag ttgggagaga 1020 acagttcctt aaatttctag agtcagaatt cagctcggaa aatttaagat tctggctggc 1080 agtggaggac ctgaaaaaga ggcctattaa agaagtaccc tcaagagttc aggaaatatg 1140 gcaagagttt ctggctcccg gagcccccaq tqctattaac ttggattcca agagttatga caaaaccaca cagaacgtga aggaacctgg acgatacaca tttgaagatg ctcaggagca 1260 catttacaaa ctgatgaaaa gtgattcata cccacgtttt ataagatcca gtgcctatca 1320 ggagetteta caggeaaaga aaagagggga aateteteac gtecaagagg ttaacaagee 1380 ttgctcagtc ttactaaacg gatcatcttg tagcatgaat gcagactgga gtcactgcac 1440 acactttgta gctcaatgtt gtgacctgga gcagaggaca ttagaacaag atgttgcatg 1500 agcaaaggac ctaaattgtt atttttgtgt gtacattcca tctccaatgg actcttccgt 1560 ctcaatgcct ccattccaaa ctgttgtctg ctttctttct ccttctacta tgctggatct 1620 gtgtetette etttttaaca agtteaagtg aagtaaaace ttttetttt tteettettt 1680 ctctctctct ctctctcaaa gcttcagtta gacacacagt tcactgaaaa ttcagtcagt 1740 caaaaactgg aagaactgta aaagaaaaaa gtatatatca ataagtatac atgtggcttc 1800 acatttatta aacaataaat toogoacaga aaqtttcatt toaccaatgt gtcacagtca 1860 gaaacaaact catgtetteg gtetgttgte tqtacattet cegttaatgt ttetegcatt 1920 tattittata ccatatttaa agaagaaaca ccttttactc caaatgtatt aaagttgatc 1980

WO 01/53455	;				PCT/US00	/35017
cettetetgt gaateteaaa	aaatttgtgt aaaaaa	atgtttatat	tgttgtttta	tettteatta	aaagatgtca	2040 2056
<210> <211> <212> <213>	460	ns				
caagcettca gacggagagg gtgctgatgg atggtgaacc caccataggt gcttgggttc	368 actatecacg tgatgtteca tactgacgac gcgaccaagg tgacgagat ggcatgttet tatttcaaaa tttatgtatt	gtactttgtg aaatcagatc ccttcccgga acacacgttc ttgagcattt atgaaaactc	aaggtggtgc tatgtgacca gtcttcatcc ttctctctct tgtcattaat tttacagggt	ccactgtgta gacatgagaa tctatgagct tcctgacaat tacttaaccc	catgaaggtg ggctgcctat ctcgcccatg tgtgggcgct ataagtgggg	60 120 180 240 300 360 420 460
<210> <211> <212> <213>	2355	ລຣ				
<400>					•	
ttgeggeegg ggeggagage aageaageeg gtatetgata geetacattg eccaggtace ettggeeate cacaatgage agteacttac	tggaattege geagtettte eggegggggg gggeetgace gggaagteca ecceagaace agtgeaceag aagatgatg eaggagetgg agaaaateca egegeettea	tggcettegg teteggcetg egttggacac ttggtaagg tggaggtgac gagaagggca ggacatete teccagegag agagaggtec	gctagggctg tcaggagatc gagacgettg ctgcagtgct aaagagcacc ggagggaggtgc ggcaggttcc ccgagtggcc caagcaacta	ggcetcateg caggcaattt cagggettte getgtgtatg gggttgett ceggggggce tecagegaag ttggetgggg geeetcace	aggaaaaaca ttacccagaa ggctggagga aagccaccat caggagagg ctgcettece ccatcttgaa agtatggagc ccaacatcat	60 120 180 240 300 360 420 480 540 600 660

ccctgatgtg ctgccctcac gcctccaccc tgaaggcctg ggccatggcc ggacgctgtt 720 cctcgttatg aagaactatc cctgtaccct gcgccagtac ctttgtgtga acacacccag 780 cccccgcctc gccgccatga tgctgctgca gctgctggaa ggcgtggacc atctggttca 840 acagggcatc gcgcacagag acctgaaatc cgacaacatc cttgtggagc tggacccaga 900 eggetgeece tggetggtga tegeagattt tggetgetge etggetgatg agageategg 960 cctgcagttg cccttcagca gctggtacgt ggatcggggc ggaaacggct gtctgatggc 1020 cccagaggtg tccacggccc gtcctggccc cagggcagtg attgactaca gcaaggctga 1080 tgcctgggca gtgggagcca tcgcctatga aatcttcggg cttgtcaatc ccttctacgg 1140 ccagggcaag gcccaccttg aaagccgcag ctaccaagag gctcagctac ctgcactgcc 1200 cgagtcagtg cctccagacg tgagacagtt ggtgagggca ctgctccagc gagaggccag 1260 caagagacca tetgeecgag tageegcaaa tgtgetteat etaageetet ggggtgaaca 1320 tattctagcc ctgaagaatc tgaagttaga caagatggtt ggctggctcc tccaacaatc 1380 ggccgccact ttgttggcca acaggctcac agagaagtgt tgtgtggaaa caaaaatgaa 1440

gatgctcttt	ctggctaacc	tggagtgtga	aacgctctgc	caggcagccc	tectectetg	1500
	gcagccctgt					1560
ggcatcctct	gtgtcgtgat	ggtctgtgaa	tggtgagggt	gggagtcagg	agacaagaca	1620
gcgcagagag	ggctggttag	ccggaaaagg	cctcgggctt	ggcaaatgga	agaacttgag	1680
tgagagttca	gtctgcagtc	ctgtgctcac	agacatetga	aaagtgaatg	gccaagctgg	1740
	gaggctggac					1800
caaggcactg	gctgtcagtg	gcagagtttg	gctgtgacct	ttgcccctaa	cacgaggaac	1860
tcgtttgaag	ggggcagcgt	agcatgtctg	atttgccacc	tggatgaagg	cagacatcaa	1920
catgggtcag	cacgttcagt	tacgggagtg	ggaaattaca	tgaggcctgg	gcctctgcgt	1980
	tgegttetgg					2040
ggatgagcag	taagtaagta	agtgtgggga	tttaaacttg	agggtttccc	tcctgactag	2100
cctctcttac	aggaattgtg	aaatattaaa	tgcaaattta	caactgcaga	tgacgtatgt	2160
	gaatatttgg					2220
	tatcaacatt					2280
gatttttagg	aagctattgc	ctaaatcagc	gtcaacatgc	agtaaaggtt	gtcttcaact	2340
gaaaaaaaaa	aaaaa					2355

<210> 370 <211> 1333

<400> 370

<212> DNA

<213> Homo sapiens

gccaggccgg	caccaggcac	agacacttat	gcccttgttg	ggagaacaga	gagaggetet	60
cttgtccact	gcctgtcttc	ggttccaact	gctggttctc	ctagaggcct	ctcctcagac	120
tcgcagagct	gcctgatcat	tgctacagaa	tgaactctag	cccagctggg	accccaagtc	180
cacagccctc	cagggccaat	gggaacatca	acctggggcc	ttcagccaac	ccaaatgccc	240
agcccacgga	cttcgacttc	ctcaaagtca	tcggcaaagg	gaactacggg	aaggtcctac	300
tggccaagcg	caagtctgat	ggggcgttct	atgcagtgaa	ggtactacag	aaaaagtcca	360
tcttaaagaa	gaaagagcag	agccacat.ca	tggcagagcg	cagtgtgctt	ctgaagaacg	420
tgcggcaccc	cttcctcgtg	ggcctgcgct	actccttcca	gacacctgag	aagctctact	480
tegtgetega	ctatgtcaac	gggggagagc	tcttcttcca	cctgcagcgg	gagcgccggt	540
tcctggagcc	ccgggccagg	ttctacgctg	ctgaggtggc	cagcgccatt	ggctacctgc	600
actccctcaa	catcatttac	agggatctga	aaccagagaa	cattctcttg	gactgccagg	660
gacacgtggt	gctgacggat	tttggcctct	gcaaggaagg	tgtagagcct	gaagacacca	720
catccacatt	ctgtggtacc	cctgagtact	tggcacctga	agtgcttctg	gaaagagcct	780
tatgatcgag	cagtggactg	gtggtgcttg	ggggcagtcc	tctacgagat	gctccatggc	840
	tctacagcca					900
ctacagatcc	ccggaggccg	gacagtggcc	gcctgtgacc	tectgcaaag	ccttctccac	960
aaggaccaga	ggcagcggct	gggctccaaa	gcagactttc	ttgagattaa	gaaccatgta	1020
ttcttcagcc	ccataaactg	ggatgacctg	taccacaaga	ggctaactcc	accettcaac	1080
	caggacctgc					1140
gtgtccaagt	ccattggctg	tacccctgac	actgtggcca	gcagctctgg	ggcctcaagt	1200

gcattcctgg gattttctta tgcgccagag gatgatgaca tcttggattg ctagaagaga 1260 aggacetgtg aaactactga ggccagetgg tattagtaag gaattacett cagetgetag 1320

1333

<210> 371 <211> 2457

gaagagctgt att

<212> DNA

<213> Homo sapiens

<400> 371 ageggeegea gaccetgaag ggacaccagg agaagatteg geageggeag tecateetge 60 etecteccca gggcccggcg cccatcccct tccagcaccg cggcggggat tccccggagg 120 ccaagaateg egtgggeeeg caggtgeeae teagegagee aggttteege egtegggagt 180 egcaggagga geogegggee gtgetggete agaagataga gaaggagaeg caaateetea 240 actgegeect ggacgacate gagtggtttg tggcccggct gcagaaggca gccgaggctt 300 tcaagcagct gaaccagcgg aaaaagggga agaagaaggg caagaaggcg ccagcagagg 360 gegtecteac actgegggea eggeeceece tetgagggeg agtteatega etgettecag 420 aaaatcaagc tggcgattaa cttgctggca aagctgcaga agcacatcca gaaccccagc 480 geogeggage tegtgeactt cetetteggg cetetggace tgategteaa cacetgeagt 540 ggcccagaca togcacgete egteteetge ccaetgetet ecegagatge egtggactte 600 ctgcgcggcc acctggtccc taaggagatg tcgctgtggg agtcactggg agagagctgg 660 720 atgeggeece gttccqaqtg qccqcqqgaq ccacaggtgc ccctctacgt gcccaagttc cacagoggot gggagootoo tqtggatgtg ctgcaggagg coccetggga ggtggagggg 780 ctggcgtctg ccccatcga ggaggtgagt ccagtgagcc gacagtccat aagaaactcc 840 cagaaqqaca qccccacttc agaqcccacc ccccqqqqq atqccctacc accaqtcaqc 900 tecceacata eteacagggg etaccageca acaccageca tggccaagta egteaagate 960 ctgtatgact tcacagcccg aaatgccaac gagctatcgg tgctcaagga tgaggtccta 1020 gaggtgetgg aggaeggeeg geagtggtgg aagetgegea geegeagegg ceaggeggg 1080 tacgtgccct gcaacatcct aggcgaggcg cgaccggagg acgccggcgc cccgttcgag 1140 caggeoggte agaaqtactg gggccccgcc ageccgaccc acaagetacc cccaagette 1200 ccqqqqaaca aaqacqaqct catqcaqcac atqqacqaqq tcaacqacqa qctcatccqq 1260 aaaatcaqca acatcaqqgc qcagccacag agqcacttcc gcqtgqaqcg cagccaqccc 1320 gtgagccage cgctcaccta cgagtcgggt ccggacgagg tccgcgcctg gctggaagcc 1380 aaggeettea geeegeggat egtggagaac etgggeatee tgaeegggee geagetette 1440 tccctcaaca aggaggagct gaagaaagtg tgcggcgagg agggcgtccg cgtgtacagc cageteaeca tgeagaagge etteetggag aageageaaa gtgggtegga getggaagaa 1560 ctcatgaaca agtttcattc catgaatcag aggaggggg aggacagcta ggcccagctg cettgggetg gggcetgegg aggggaagee cacceacaat geatggagta ttattttat atgtgtatgt attttgtate aaggacacgg agggggtgtg gtgctggcta gaggtccctg cecetgtetg gaggeacaac geceatcett aggecaaaca gtacecaagg ceteagecea caccaagact aatotcagec aaacetgetg cttggtggtg ccageceett gtccacette tettgaggee acagaactee etggggetgg ggeetettte tetggeetee eetgtgeace tggggggtcc tggcccctgt gatgctcccc catccccacc cacttctaca tccatccaca 1980 ccccagggtg agctggagct ccaggctggc caggctgaac ctcgcacaca cgcagagttc 2040 tgctccctga ggggggcccg ggaggggctc cagcaggagg ccgtgggtgc cattcggggg 21.00 2160 aaagtggggg aacgacacac acttcacctg caagggccga caacgcaggg gacaccgtgc eggetteaga caeteceage geceactett acaggeceag gaetggaget ttetetggee 2220 aagtttcagg ccaatgatcc ccgcatggtg ttgggggtgc tggtgtgtct tggtgcctgg 2280 acttgagtet caccetacag atgagaggtg getgaggeac cagggetaag caattaaace 2340 agttaagtct caaaaaaaaa aaaaaggggg ggccgtttta aagaaccctt gggggggccc 2400 aagttaacgc gggctggcaa ggtaaaagtt ttttccttat agggagccgt ataaaac 2457

```
<210> 372
<211> 1333
<212> DNA
```

<213> Homo sapiens

<400> 372

aagettggea egagggtett gteageagee eggeeattgg ageatatett tetgeeagtt 60 aeggagaeag ectegitgtg etggtggee cagtggtgge tettetggae atetgettea 120 tettagtgge tgtteeagaa tetetgeetg agaaaatatga aeeggttee tggggagete 13

agatttcttg	gaaacaagca	gacccttttg	cgtcgttgaa	gaaagttgga	aaagattcta	240
ctgtcttact	aaatctgcat	caccgtgtgt	ctttcatacc	ttcctgaagc	tgggacagta	300
ttcaagtttt	ttttctctat	ctcagggcag	gtcatagggt	ttgggatctg	ttaaaattgc	360
agcattcata	gctatggtag	gaattctgtc	tattgtggct	cagacggcct	ttcttagcat	420
cttgatgaga	tcattaggaa	ataagaatac	tgtcctcctt	ggcttgggct	tccagatgct	480
			ggcctggatg			540
ggctgccatg	tccagcatca	cgtttccggc	aatcagtgcc	ctcgtctctc	ggaatgcaga	600
			cataactgga			660
cctggggcca	gcactgtatg	gcttcatatt	ctacatgttc	catgtggaac	tgactgagtt	720
gggcccgaaa	ttgaattcta	acaacgttcc	cctgcaggga	gctgtcatcc	caggcccgcc	780
			gtcttttctg			840
			cagtaacagc			900
			tgagccacta			960
			tcagtgcact			1020
			gccatggagg			1080
tcatggtgct	ggatgggaga	cgctagcggc	atccttcagg	gccaagtttg	ataaatacca	1140
ccgccatcat	tctgctcatc	ctcctcctgt	tttttttt	ctcttacatt	ctttttttt	1200
			ttggaaaaac			1260
actcccaggg	ggaacctcaa	ataaaaaaag	cattettttg	tgaaaaaagg	agggcttcct	1320
tgaaaggaca	aaa					1333

<210> 373

<211> 2578 <212> DNA

<213> Homo sapiens

<400> 373

atggcggcag gcctggccac gtggctgcct tttgctcggg cagcagcagt gggctggctg cccctggccc agcaacccct gcccccggca ccgggggtga aggcatctcg aggaqatqaq 120 gttctggtgg tgaacgtgag cggacggcgc tttgagactt ggaagaatac gctggaccgc 180 tacccagaca cettgetggg cageteggag aaggaattet tetacqatqc tqactcaqqc 240 gagtacttct tcgatcgcga ccctgacatg ttccgccatg tgctgaactt ctaccgaacg 300 gggcggctgc attgcccacg gcaggagtgc atccaggcct tcgacgaaga gctggctttc 360 tacggcctgg ttcccgagct agtcggtgac tgctgccttg aagagtatcg ggaccgaaag 420 aaggagaatg ccgagcgcct ggcagaggat gaggaggcag agcaggccgg ggacggccca 480 gecetgecag caggeagete cetgeggeag eggetetgge gggeettega gaatecacae 540 acgagcaccg cagccctcgt tttctactat gtgaccggct tcttcatcgc cgtgtcggtc 600 atogocaatg tggtggagac catocoatge egeggetetg caegeaggte etcaagggag 660 cagccctgtg gcgaacgctt cccacaggcc tttttctgca tggacacagc ctgtgtactc 720 atattcacag gtgaatacct cctgcggctg tttgccgccc ccagccgttg ccgcttcctg 780 cggagtgtca tgagcctcat cgacgtggtg gccatcctgc cctactacat tgggcttttg 840 gtgcccaaga acgacgatgt ctctggcgcc tttgtcaccc tgcgtgtgtt ccgggtgttt 900 cgcatcttca agttctccag gcactcacag ggcttgagga ttctgggcta cacactcaag 960 agetgtgeet etgagetggg ettteteete tttteeetaa eeatggeeat cateatettt 1020 gccactgtca tgttttatgc tgagaagggc acaaacaaga ccaactttac aagcatccct 1080 geggeettet ggtataccat tgtcaccatg accaegettg gctacqqaqa catggtgeec 1140 agcaccattg ctggcaagat tttcgggtcc atctgctcac tcagtggcgt cttggtcatt 1200 gecetgeetg tgecagteat tgtgtecaae tttageegea tetaceaeca gaaccagegg 1260 gctgacaagc gccgagcaca gcagaaggtg cgcttggcaa ggatccgatt ggcaaagagt ggtaccacca atgeetteet geagtacaag cagaatgggg geettgagga cageggeagt ggcgaggaac aggctgtttg tgtcaggaac cgttctgcct ttgaacagca acatcaccac 1440 ttgctgcact gtctagagaa gacaacgtgc catgagttca cagatgagct caccttcagt 1500 gaagecetgg gageegtete geegggtgge egeaceagee gtageacete tgtgtettee 1560 cagccagtgg gacccggaag cetgetgtet tettgetgee etegeaggge caagegeege 1620 gecateegee ttgccaacte cactgeetea gtcageegtg gcaggeatge aggagetgga 1680 catgetggca gggcttgcgc aggagccatg ccccttcaga gccgctccag ccttcaatgc 1740

caagececat	gacageettg	acctgaactg	cgacageggg	ggacttcgtg	gctgccatta	1800
tcagcatccc	tacccctcct	gecaacaeee	cagatgagag	ccaaccttcc	tcccctggcg	1860
geggtggeag	ggccggcagc	accctcagga	actccagcct	gggtacccct	tgeetettee	1920
ccgagactgt	caagatctca	tecetgtgag	gggtaggcct	gctgattcag	agggteetet	1980
tcatttttgg	gaactccttt	ccaaagccat	atttttggga	ggcagagagg	ggcaggcttg	2040
ggcacccett	etgececec	cactgagaac	tatgcaatgg	agtttcatga	aatggtccac	2100
atagtgggga	agtagecagg	aaatgagaaa	cttcctccca	ccccagacat	ttttcctggt	2160
gggagctgaa	gcactgggct	tecacaggee	cetggcetee	ttgccctagc	acactgggac	2220
tggccccact	ctcccagctg	gactcctgca	tgeteeteee	cttgggctct	cagatgaagg	2280
caaagctttg	atccgacatc	tgagctctag	cctaagaagg	agagttgaga	tttcctcctc	2340
cctctggctg	ggatatggag	ctttggaggt	tcagagaaga	gaaccctcac	ctctgatctg	2400
geetetaega	gaggteetea	tetecatetg	gcccaacaat	tcccagattc	tgaagcttgg	2460
gaatgcaaac	acaggettea	tggggctgtg	geettetgge	aggegacetg	ccatccccag	2520
ggccttgcct	gagggggttc	aggettgeet	tttcccaaca	cacactcaga	taggcaca	2578

<210> 374 <211> 664

<212> DNA

<213> Homo sapiens

<400> 374

tgaggetggg geaageettt taaggaetgg accaegggtg ggeaggatae egggggagaa 60 cocgccctgt tagttggggc tggggagggc cgcgcaccga gactaaattg tccttccggg 120 cagatocgot caccaggood tggogacotg agoatotacg acaactggat coggtactto 180 aacegeagea geeeggtgta eggeetggte ceeagageaa gaetteagee aggatetace 240 ccacctacca cacagoottt gacacotttg actatgtgga caagtttttg gaccogggtg 300 aggagggaga caaggggcat cctgagacca ggacaggaga ggctgaagac tgagccctgg 360 cettgtcacc ttgccgcagg cttcagcagc catcaggctg tggcccggac agcggggagt 420 gtgattctcc ggctcagtga cagcttcttc ctgcccctca aagtcagtga ctacagtgag 480 acacteegea getteetgea ggeageeeag caagatettg gggeeetget ggageageae 540 agcatcagcc tggggcctct ggtgactgca gtggagaagt ttgaggcaga agctgcagcc ttgggccaac gcatatcaac actgcagaag ggcagccctg accccctgca ggtccggatg 660 664

<210> 375 <211> 1495 <212> DNA <213> Homo sapiens

<400> 375

60 ggaattegag gegggggeag cetegecage gggggeeeeg ggeetggeea tgeeteaetg agecagegee tgegeeteta cetegeegae agetggaaee agtgegaeet agtggetete 120 180 acctgettee teetgggegt gggetgeegg etgaeeeegg gtttgtaeea eetgggeege actgtectet geategaett eatggtttte aeggtgegge tgetteaeat etteaeggte 240 aacaaacago tggggcccaa gategtcato gtgagcaaga tgatgaagga egtgttetto 300 tteetettet teeteggegt gtggetggta geetatggeg tggecaegga ggggeteetg 360 aggecaeggg acagtgactt eccaagtate etgegeegeg tettetaceg teectacetg 420 cagatetteg ggeagattee eeaggaggae atggaegtgg eeetcatgga geacagcaac 480

tgctcgtcgg	agcccggctt	ctgggcacac	cctcctgggg	cccaggcggg	cacctgcgtc	540
tcccagtatg	ccaactggct	ggtggtgctg	ctcctcgtca	tcttcctgct	cgtggccaac	600
atcctgctgg	tcaacttgct	cattgccatg	ttcagttaca	cattcggcaa	agtacagggc	560
aacagcgatc	tctactggaa	ggcgcagcgt	taccgcctca	tccgggaatt	ccactctcgg	720
cccgcgctgg	ccccgccctt	tatcgtcatc	tcccacttgc	gcctcctgct	caggcaattg	780
tgcaggcgac	cccggagccc	ccagccgtcc	tccccggccc	tcgagcattt	ccgggtttac	840
ctttctaagg	aagccgagcg	gaagctgcta	acgtgggaat	cggtgcataa	ggagaacttt	900
ctgctggcac	gcgctaggga	caagcgggag	agcgactccg	agcgtctgaa	gegeaegtee	960
cagaaggtgg	acttggcact	gaaacagctg	ggacacatcc	gcgagtacga	acagegeetg	1020
aaagtgctgg	agcgggaggt	ccagcagtgt	agccgcgtcc	tggggtgggt	ggccgaggcc	1080
ctgagccgct	otgeettget	gcccccaggt	gggccgccac	cccctgacct	gcctgggtcc	1140
aaagactgag	ccctgctggc	ggacttcaag	gagaagcccc	cacaggggat	tttgctccta	1200
gagtaaggct	catctgggcc	taggacaaag	cacctggtgg	ccttgtcctt	gaggtgagcc	1260
ccatgtccat	ctgggccact	gtcaggacca	cctttgggag	tgtcatcctt	acaaaccaca	1320
gcatgcccgg	ctcctcccag	aaccagtccc	agcctgggag	gatcaaggcc	tggatcccgg	1380
gccgttatcc	atctggaggc	tgcagggtcc	ttggggtaac	agggaccaca	gacccctcac	1440
cactcacaga	ttcctcacac	tggggaaata	aagccatttc	agaggaaaaa	aaaaa	1495

<210> 376 <211> 373

<211> 3/3 <212> DNA

<213> Homo sapiens

<210> 377

<211> 2867

<212> DNA

<213> Homo sapiens

<400> 377 cttcctcttc tccacgcagg cttcaacagg agatttatgg agaatagcag cataattgct 60 tgctataatg aactgattca aatagaacat ggggaagttc gctcccagtt caaattacgg 120 gcctgtaatt cagtgtttac agcattagat cactgtcatg aagccataga aataacaagc 180 gatgaccacg tgattcagta tgtcaaccca gccttcgaaa ggatgatggg ctaccacaaa 240 ggtgagetee tgggaaaaga actegetgat etgeecaaaa gegataagaa eegggeagae 300 cttctcgaca ccatcaatac atgcatcaag aagggaaagg agtggcaggg ggtttactat 360 gecagacgga aatcegggga cagcatecaa cagcacqtga agatcacece agtgattgge 420 caaggaggga aaattaggca ttttgtctcg ctcaaqaaac tqtgttgtac cactqacaat 480 aataagcaga ttcacaagat tcatcgtgat tcaqqaqata attctcagac aqaqcctcat 540 toattcagat ataagaacag gaggaaaqag tocattqacq tgaaatcgat atcatotoga 600

ggcagtgatg	caccaagcct	gcagaatcgt	cgctatccgt	ccatggcgag	gatccactcc	660
atgaccatcg	aggeteceat	cacaaaggtt	ataaatataa	tcaatgcagc	ccaagaaaac	720
agcccagtca	cagtagcgga	agccttggac	agagttctag	agattttacg	gaccacagaa	780
ctgtactccc	ctcagctggg	taccaaagat	gaagatcccc	acaccagtga	tcttgttgga	840
ggcctgatga	ctgacggctt	gagaagactg	t.caggaaacg	agtatgtgtt	tactaagaat	900
gtgcaccaga	gtcacagtca	ccttgcaatg	ccaataacca	tcaatgatgt	tececettgt	960
atctctcaat	tacttgataa	tgaggagagt	tgggacttca	acatctttga	attggaagcc	1.020
attacgcata	aaaggccatt	ggtttatctg	ggcttaaagg	tetteteteg	gtttggagta	1080
tgtgagtttt	taaactgttc	tgaaaccact	cttcgggcct	ggttccaagt	gatcgaagcc	1140
aactaccact	cttccaatge	ctaccacaac	tccacccatg	ctgccgacgt	cctgcacgcc	1200
accgctttct	ttcttggaaa	ggaaagagta	aagggaagcc	tcgatcagtt	ggatgaggtg	1260
gcagccctca	ttgctgccac	agtccatgac	gtggatcacc	cgggaaggac	caactctttc	1320
ctcctgcaat	gcaggcagtg	agcttgctgt	gctctacaat	gacacctgct	gttcctggag	1380
agtcaccaca	ccgccctggc	cttccagcct	cacggtcaag	gacaccaaaa	tgcaacattt	1440
tcaagaatat	tgacaaggga	accattatcg	aacgctgcgc	caggctatta	ttgacatggt	1500
tttggcaaca	gagatgacaa	aacactttga	acatgtgaat	aagtttgtga	acagcatcaa	1560
caagccaatg	gcagctgaga	ttgaaggcag	cgactgtgaa	tgcaaccctg	ctgggaagaa	1620
		tgatcaaacg				1680
cccatgccgc	cccttggacc	tgtgcattga	atgggctggg	aggatetetg	aggagtattt	1740
tgcacagact	gatgaagaga	agagacaggg	actacctgtg	gtgatgccag	tgtttgaccg	1800
		agtctcagat				1860
		ttgcacatct				1920
ctacaaacac	tggaagacac	tagatgacct	aaagtgcaaa	agtttgaggc	ttccatctga	1980
		gagggggcct				2040
gtagcgtaaa	caagaggcct	teetttetaa	tgacaatgac	aggtattggt	gaaggagcta	2100
		aatccattcc				2160
		atatatgttc				2220
		tetgeetgte				2280
		caggccacag				2340
		taagtaggct				2400
		tagcttgact				2460
		cagatttatc				2520
		ttacagataa				2580
		tatgacacct				2640
		gcagcctgtg				2700
		agggaaaaag				2760
		agaggcagcc			ttatataaaa	2820
gccattaaat	ttgaatgccc	ttggacaagc	ttttcttaaa	aaaaaaa		2867

<210> 378 <211> 8053 <212> DNA <213> Homo sapiens

<400> 378 gettteettt etaaagtaga agaggatgat tateeetetg aagaactaet agaggatgaa 60 aacgctataa atgcaaaacg gtctaaagaa aaaaaccctg ggaatcaggg caggcagttt 120 gatgttaatc tgcaagtccc tgacagagca gttttaggga ccattcatcc agatccagaa 180 attgaagaaa gcaagcaaga aactagtatg attttggata gtgaaaaaac aagtgagact 240 gctgccaaag gggtcaacac aggaggcagg gaaccaaata caatggtgga aaaagaacgc 300 cetetggeag ataagaaage acagagacea titgaacgaa gigactitte igacageata 360 aaaattcaga ctccagaatt aggtgaagtg tttcagaata aagattctga ttatctgaag 420 aacgacaacc ctgaggaaca tctgaagacc tcagggcttg caggggagcc tgagggagaa 480 ctctcaaaag aggaccatga gaacacagag aagtacatgg gcacagaaag ccaggggtct 540 gctgctgcag aacctgaaga tgactcgttc cactggactc cacatacaag tgtagagcca 600 gggcatagtg acaagaggga ggacttactt atcataagca gcttctttaa agaacaacag 660

tetttgcage	ggttccagaa	gtactttaat	gtccatgagc	tggaagcctt	gctacaagaa	720
atgtcatcaa	aactgaagtc	agcgcagcag	gagageetge	cctataatat	ggaaaaagtc	780
ateastanaa	tottaaatáa	ttctgagtca	grankhah-a			840
ctagataagg	coccegige	ccccgagcca	caaaccccga	gcacagcaga	aaaaatgett	
gatactcgtg	tggctgaaaa	tagagatetg	ggaatgaacg	aaaataacat	atttgaagag	900
getgeagtge	ttgatgacat	tcaagacctc	atctattttg	tcaggtacaa	gcactccaca	960
		ggtgatggca				1020
auggaagaga	tgeaaceact	gcatgaagat	aattteteae	gagagaagac	agcagaactt	1080
aatgtgcagg	ttcctgaaga	acccacccac	ttggaccaac	gtgtgattgg	ggacactcat	1140
		gccaaatact				1200
9	atastakaaa	tgctattgat	5454445400	oggacccagg	goodgecaca	
						1260
gagccggcaa	gtgtcacacc	tttggaaaac	gcaatccttc	taatatattc	attcatgttt	1320
tatttaacta	agtcgctagt	tgctacattg	cctgatgatg	ttcagcctgg	gcctgatttt	1380
tatogactoo	astaassaa	tgtatttatc	aataaattat	teemaaattee	*****	1440
		ccttgttgtg				1500
caaatttctg	agaagttgaa	gactatcatg	aaagaaaata	cagaacttqt	acaaaaattq	1560
tcasattato	aacagaagat	caaggaatca	aagaaacatg	ttcaggaaac	cannaaanaa	1620
antatentte	tatatastas		******		caggaaacaa	
		agcaattaaa				1680
aatcaggaaa	ttctggatga	cacagctaaa	aatcttcgtg	ttatgctaga	atctgagaga	1740
qaacaqaatq	tcaaqaatca	ggacttgata	tcagaaaaca	agaaatctat	agagaagtta	1800
		tgcctcagaa				1860
getaagetta	gtgaagagaa	ggtgaagtct	gaatgccatc	gggttcaaga	agaaaatgct	1920
aggettaaga	agaaaaaaga	gcagttgcag	caggaaatcg	aagactggag	taaattacat	1980
actagactes	gtgaggaaat	caaatcattt	gagaagtete	arasarettt	ageagtaggt	2040
Cttactcaca	aggatgataa	tattaatgct	ttgactaact	gcattacaca	gttgaatctg	2100
ttagagtgtg	aatctgaatc	tgagggtcaa	aataaaggtg	gaaatgattc	agatgaatta	2160
		tgaccggaat				2220
		gactgcaata				2280
		ccgtgtccac				2340
aattggaaga	tgaccgcaac	tcactacaag	ctgccaaagc	tqqactqqaa	gatgaatgca	2400
		gagattetga				2460
		gaagagtatg				2520
ctgcagatga	aaaggcagtt	toggotgoag	aggaagtaaa	aacttacaag	cggagaattg	2580
aaqaaatqqa	ggatgaatta	cagaagacag	agcggtcatt	taaaaaccag	atcoctaccc	2640
		aactggctca				2700
		aatttaagac				2760
caatgctgca	agaagaacct	gtgattgtaa	aaccaatgcc	aggaaaacca	aatacacaaa	2820
accetecacq	gagaggtcct	ctgagccaga	atgggtcttt	taggggat.cc	cctatasata	2880
atananaata	atacastas	ttgacagtgg	2000200000		*****	2940
geggagaacg	ccccccca	ctgacagtgg	agecacecgi	gagaectete	cordecacte	
		agaagtgaat				3000 -
ctcqatggtc	agctgaggca	tctgggaaac	catatactta	tgatccagga	tctggtacag	3060
ctaccatcat	gaacagcagc	tcaagaggct	cttcccctec	agaataata	astasaaaa	3120
		ccaagaggee	ccccccac	cagggcaccc	gacgaaggca	
		gggccccctc				3180
ccatgggagg	ccctgtacca	ccacccattc	gatatggacc	accacctcag	ctctgcqqac	3240
cttttgggcc	teggeeactt	cctccaccct	ttaaccetaa	tatgcgtcca	ccactagget	3300
taananaatt	tacecaeaaa	gttccaccag	00000000000	aatgagtata	an a a a a t a a a a	3360
gatttttacc	cggacacgca	ccatttagac	ctttaggttc	acttggccca	agagagtact	3420
ttattcctgg	tacccgatta	ccacccccaa	cccatggtcc	ccaggaatac	ccaccaccac	3480
ctgctgtaag	agacttactg	ccgtcaggct	ctagagatga	acctacacct	accteteaga	3540
ansat sagas	agaatattaa	ange et t to e				
gcaccagcca	ggactgttta	caggetttaa	aacagagcec	ataaaactat	gaeeccetgag	3600
gtttcattgg	aaagaaagtg	tactgtgcat	tatccattac	agtaaaggat	ttcattggct	3660
tcaaaatcca	aaagtttatt	ttaaaaggtt	tottottaga	actaagetge	cttggcagtg	3720
		ttcaaaaatg				3780
caageragag	egreerraca	actttgaaat	gtgcaataaa	gaatacctgt	gttttagcta	3840
atgtagcata	tgtaattgca	aaatgattta	gaatgtcatg	aaaaatatga	acatttcctg	3900
		gtatttccat				3960
acquaquaat	aatattata	agcgttttt	tagagtatat	aat aa aa aa	aghethages	
acggagcaat	ggegtttata	agoguettet	Ladactatet	ggccacaaag	accgctacgc	4020
		tcactaaact				4080
aatagctcat	aaaaatttgt	ttattaatat	ttcccaagtq	tetgttgaet	cattggactg	4140
ttatgagggt	tgtgccat++	ggggaacatg	taaactcacc	ctcccagaag	traagatoot	4200
contrates	nanattae		-t		Jaagacygt	
aacraaraac	acactteegg	ctgctcctcc	greacetgtg	aactctacaa	grgacgrett	4260
tttatttcaa	agaagtttta	tttccccact	tgtaatagca	ttccacatgc	ctttccttta	4320
cgatecteat	tgtcctattt	gagaatggtt	tteetgagag	tgagtttacc	attagtagee	4380
aagagttgtt	tgaccctgst	gttcccattg	tttttaggg	ttecetatae	22222222	4440
ccacaacaga	aaaatgaaaa	tgatgtgtca	tggccgtaaa	agcatagaaa	ccttaaaaa	4500

ttttaaaatg	tacagtccct	tatctatctt	teccattect	tgccactgat	ttttgaggaa	4560
tataataaaa	agattggaag	agtataatgc	catgagaaag	aatgatttag	gactgtgagg	4620
gttataacat	gccctaggtc	agcaaccaag	ggttgaaatc	agttctgttt	tagggggaaa	4680
tgggggggc	gacagatatt	attccaaaat	taatattaat	taatatttaa	acgttggtgt	4740
ttttatttaa	aaatcagtaa	ctaaccatct	ggaattgcac	catacttaaa	gtettateea	4800
ttactacact	gtctttaaaa	caatgtttct	ttaaatactc	tacaacgttt	ctaagaacga	4860
acttcagaca	ttttaattac	agtaataata	gcactccttt	taaggagttt	cagatccaca	4920
ctaaaactaa	aatcataaaa	ggctgatact	tttgtttgct	gctaggctat	attcttccat	4980
tctttgaagt	cctatgatgt	aatatttttg	aaacctagtg	tatgtcttgt	cactgttgtg	5040
atatttaatc	gattaagaat	accttgtaaa	aaggagcaaa	agcttcaatg	tgaaacaatt	5100
	atactaaaca					5160
	ctgtcaaagt					5220
atctatatgt	cctcccgttt	aatatcaaga	atagaagaaa	ttaagaggaa	aactccacag	5280
aagagcatag	gccactttta	gccatgtaaa	aataagatta	agtcacaaat	acaacttttg	5340
aatttacctg	tcaatatctc	tttaggacac	aaaacaatgc	tgaagttaat	ataatttcta	5400
attttaaatg	tcatttaagt	gtagattatg	ccatctagga	aggtaagtag	gaaaggtaaa	5460
ttaaatctat	ttttaaaatt	caaaatatta	gagtatttt	cccctctaaa	gccttttttg	5520
	tgtatctgac					5580
	aagttgtgag					5640
	cagcaaaccc					5700
ggagtatcat	cccctcagcc	çaaatcacct	tttcccatcc	tcctaaagtt	tccatcctat	5760
	catctccaac					5820
tttatgaagc	agcaatattc	agcctgaaag	catttctgcc	atagttgttg	tagttatatc	5880
	gattttttc					5940
ttctgtgtca	acttcaagat	aatcactcat	tttctcgtta	tattcaggtc	tgaattaaag	6000
ttaagttaat	cacccagtgt	tcaatttaag	cttctttaat	gttgatgaaa	ggtatttgta	6060
	actatactta					6120
atatacatat	cttatggttt	atgagaaaag	agaaaaaata	atacatcggt	tttgctacac	6180
tttaatgggt	tttttttta	agggattttt	tttcaggtct	tgtcagcaac	atcaaacaaa	6240
aggtactgag	tactccacag	ggtacagagt	gctgccaagc	accttagaaa	aattacatga	6300
cacggagaaa	atgcgcctct	tgctccttga	agagettaca	gtctagggat	ttgacaactc	6360
acagtettag	gaactgggca	aagtaaggca	aattcttcat	cccctagage	tattgtggac	6420
tgaatcattt	tagaatttgg	aattaatcca	atcaagatga	gagacaagac	taaatttggc	6480
tgagaattca	ttcaggctcg	catagttttt	attaacatcc	gtctagtaaa	cagaatggac	6540
ctaacagaca	actgaaagta	aagactagat	ctcttgaagt	gcaagggcta	caacaactta	6600
attgtggtta	cttattttaa	aaagcaaaca	tactgaatgg	tatgactagg	gtgattacac	6660
tagtttaaaa	ataggccagg	tactgacact	gcattcccct	catgcattgc	tcatttaaaa	6720
	taaaatatgt					6780
tctgtgtatc	aaatatccac	ctcatgtgta	ctatgaaagt	tttatttatg	ccccattaag	6840
	attatagtaa					6900
	ggaaataaat					6960
tccagatttt	gcatactcct	cactgtaaga	agaggtatgc	aggttttaag	gtttcacaat	7020
	aaaaacagca					7080
ttttagatta	cattgtttag	aagacattgt	aaacccatct	aaaactttgt	aattattttg	7140
	aatgttaacc					7200
	tcgacatgac					7260
	acagctacaa					7320
	taagcaggaa					7380
	acatccagac					7440
	cactacccta					7500
	aaagtgaaca					7560
	gcacatccta					7620
	aaaatagact					7680
	taaacctgta					7740
	ggtacagett					7800
	ctgttgaagg					7860
	acagaagttc					7920
	agataaagtg					7980
	ttgtatagtt	ctattacaat	tggcccaggt	ttaatttcat	ccatctccat	8040
gaaagcaaaa	cac					8053

```
. <210> 379
  <211> 4455
  <212> DNA
  <213> Homo sapiens
```

<400> 379

agatggetge egacagtgag ecegaateeg aggtatttga gateaeggae tteaecaetg 60 cctcggaatg ggaaaggttt atttccaaag ttgaagaagt cttgaatgac tggaaactga 120 180 ttqqaaactc tttqqqaaaq ccactcqaaa aqqqtatatt tacttctqqc acatqqqaaq agaaatcaga tgaaatttcc tttgctgact tcaagttctc agtcactcat cattatcttg 240 tacaagagte cactgataaa gaaggaaagg atgagttatt agaggatgtt gttccacaat 300 ctatocaga tttoctoggt atgaataatg actttoctoc aagagcacat tgcctggtaa 360 gatggtatgg gctacgtgag ttcgtggtga ttgcccctgc tgcacacagt gacgctgttc 420 tcagcgaatc taagtgcaac cttcttctga gttctgtttc tattgccttg ggaaacactg 480 gctgtcaggt gccactcttt gtgcaaattc accacaaatg gcgaagaatg tatgtaggag 540 aatgtcaagg tootggtgta ogaactgatt togaaatggt toatottaga aaagtgocaa 600 660 atcaqtacac tcacttatca qqtctqctqq atatcttcaa atcaaaqatt qqatqtcctt 720 taactccatt qcctccaqtt aqtattqcta ttcqatttac ctatqtactt caaqattqqc 780 aggagtattt ttggcctcag caacctccag acatagatgc ccttgtagga ggagaagttg gaggettgga gtttggcaag ttaccatttg gtgcctgcga agatcctatt agtgaactcc 840 atttagetae tacatggcae teatetgace gaagggatea ttgtggataa tgatgtttat 900 tetgatttgg atcetattca agetecacat tggtetgtta gagttegaaa agetgagaat 960 cctcagtgtt tgctaggtga ttttgtcact gaatttttta aaatttgccg tcgaaaggag 1020 tcaactgatg agattcttgg acgatctgca tttgaggaag aaggcaaaga aactgctgat ataactcatq ctttgtcaaa attgacagag ccggcatcag ttccaattca taaattatca 1140 gtttcaaata tggtacacac tgcaaagaag aaaatccgaa aacacagagg tgtagaggag 1200 teaccectaa ataatgatgt tettaatact atteteetgt tettatteee tgatgetgtt 1260 1320 totgagaaac cattagatgg aactacttca acagataata ataatcctcc atcagagagt qaaqactata atctctacaa tcaqttcaaq tctqcaccat ctqacaqttt aacatacaaa 1380 ctggctttgt gtctctgtat gatcaatttt taccatggag ggttgaaagg agtggcacac 1440 ctctgqcagg aatttgttct tgaaatgcgt ttccgatggg aaaacaactt tctgattcca 1500 ggattagcaa gtggaccccc agatctgagg tgttgtttac tgcatcagaa actacagatg 1560 ttaaattgtt gtattgaaag aaagaaggca cgtgatgagg ggaaaaagac aagtgcttca 1620 gatgtcacta atatatatcc aggggatgct ggaaaagcag gagaccagtt ggtgccagat 1680 aatctaaaag aaacagataa ggaaaaggga gaggtaggaa aatcttggga ttcctggagt 1740 gacagogaag aagaattttt tgaatgoota agtgatactg aagaacttaa aggaaatgga 1800 1860 caaqaqaqtq qcaaqaaaqq aqqacctaaq gaqatqqcaa atttaaggcc gqaaqgacqg 1920 ctctatcage atgggaaact tacactgctg cataatggag aacctctcta cattccagta acccaggaac cagcacctat gacagaagat ctgctagaag agcagtctga agttttagct 1980 aaattaggta catcggcaga gggggctcac cttcgagcac gcatgcagag tgcctgtctg 2040 ctctcagata tggagtcttt taaggcagct aatccaggtt gctccctgga agattttgtg 2100 aggtggtatt caccccggga ttatattgaa gaggaggtga ttgatgaaaa gggcaatgtg 2160 gtgctgaaag gagaactgag tgcccggatg aagattccaa gcaatatgtg ggtagaagcc 2220 tgggaaacag ctaagccaat tcctgctaga aggcaaagga gactcttcga tgatacacgg 2280 gaagcagaaa aggtgctgca ctatctggca atccagaaac ctgcagacct tgctcggcac 2340 ctgttacctt gtgtgattca tgcagctgta ctcaaggtaa aggaagaaga aagtctcgaa 2400 aacatttctt cagttaagaa gatcataaag cagataatat cccattccag taaagttttg 2460 cactteecca atecagaaga caagaaattg gaagaaatca tteaccagat tactaatgtg 2520 gaagetetea ttgccagage teggteacta aaagecaagt ttggaactga gaaatgtgaa 2580 caggaggagg aaaaggaaga tettgaaagg tttgtgagtt geetgetgga geageetgaa 2640 gtgttagtca ccggtgcagg aagaggacat gctggcagga tcattcacaa gctgtttgtg 2700 2760 aatgcccaqa qqqctqcaqc tatqactcca ccaqaqqaqq aattqaaqaq aatggqctcc ccaqaqqaaa qaaqqcaqaa eteeqtqtca qaetteecac eeeetqetqq eeqqqaatte 2820 attttgegca ccactgtgcc gegccctgct ccctactcca aagetetgcc tcageggatg 2880 tacagtgttc tcaccaaaga ggactttaga cttgcaggtg ccttttcatc agatacttcc 2940 ttettetgat tettetagea ttactegttg gtggetteag agacagtget geeteeteet 3000 gagggaggga aggtaccagg gagaacctgg gaggtcctgg agagggccct gtccagttgg 3060 gtgatcagga atcaaaccag catcggaaag acttcccage accaagcttg agctgtgteg 3120

3180

tttcgtggag ggggcagcga ggatgggctt gagctgttga gagatttctg ccctagagat

ggcctttgta	tatggggggg	tggtggggg	acacaaacac	atcagacact	ccgtcctcac	3240
actggcagga	cggtgttcat	cgcattctct	tctgtgacca	gcctctaggc	tageggetge	3300
attcgtggtc	tqtgcaaaca	cttcgtggtt	ctatatatca	gcagcaagtq	tgcaaaataa	3360
aggacctgtt	aactcagatt	tctggatatt	ttqgtqqtaq	cttctagtcc	cagaatctgt	3420
gtttttaaaa	tactacatga	cattetgtet	attcaatcac	ctggtggtca	tctttcttgt	3480
actaattaac	tgttgatgag	cattttggat	attctaggag	aaagcctata	atttcacata	3540
gtttctcttt	ttcatgtaac	tgtaacctaa	atgtattact	tctgataaaa	ctatatatca	3600
aatgtcactg	caaattagtt	ttatatctgt	catgtgagat	ttgtcttact	tatttţtctt	3660
ttggttgcca	tggaagttat	ggccctgaaa	atcgtctccc	teccettete	ttgctgtaca	3720
gcatgcgttc	tctttttgtg	gttgctggct	gggtactgta	tttaatgaag	tagagaatag	3780
cacttgcaaa	aatacagtct	tggtacctag	agactgtcat	gcagatagta	taatttggta	3840
tatgtgctaa	tgcattgagt	agaggattat	tttaacacac	tattttgctt	ttgtatttta	3900
gttaaaataa	tcgatgggga	tgtgtagccc	ccccgtgtga	ggatgacatc	accacatttc	3960
tagtttcatg	gagctcaaga	tgtcttgtgt	ctgtgtggct	agatggcctc	tgcttggtaa	4020
tcttatttt	aggcctaaaa	ttcccactta	aatccaaagt	aaaaatggtt	atactgaagc	4080
ataaaccttg	cctgtgtaat	tttaaaaaat	taatagagct	gtgcaaaccc	tgttattttt	4140
gtaaaaaaaa	aaaaaataca	tatctatata	taatatgtgt	gtgtgtgtga	catatgcaca	4200
cgtctctgtg	tatgtgaagt	aggggaggcc	ctgggggatg	acctcccagc	ctttatgaat	4260
cttttctcta	tgctgctgga	cttcattctt	actggtcacg	cgatgcaggc	ggcctgaggc	4320
cagtgctgta	ccaagtagaa	gacggttcct	aaggacagag	tttgtctgtt'	ttctaacaaa	4380
gaaaaattct	acaaaggagt	ggttaaagtt	acaaaggcat	tgtgaatcta	ataaaaggaa	4440
aggtgtcgct	taaaa					4455

<210> 380 <211> 2333

<212> DNA

<400> 380

<213> Homo sapiens

agataccaca gcagaagaaa aacgtcttgc aagaaaagac ttcatggttt acaacgatca aatgtatggg ctatttgcct gattggtggc ctggactcag caagagattc ctttgcagca gaggttggcc acacatetgg gggctgcaac accactgaaa agacagettt etaagcatta gtgtaaggca aaaagcagag tgcctaaact tggccatttc caccaagaaa aaaagtttca tagcaacctt ccttcaccag aaaggettac tttatgatat gctaacagaa cagaaaagca ggttgggaca agatacagac tttgttgcat ttagctatqa cccttctctc ccctctqtqq

atgtqqqcag qqtqqqqaqa qqcaqqaaqa qqcaqtaqaq qqaaatqaca tttqcactca ggottocogo coctacecae coctacectt egeccaqaea qaeqteqqat etatqetqea ccaggggtgg gtcatggagt ccagctaatt gccaggagct gaggcgtgta caagccatga aaagagctgc cccacggcct ccccacatca ctgtccttca tgcacttgca tctttaaggc tgccagcttc agageteect ggacatteec tggccaagtg teatecetgt gtcaaatgga tgggatgcca ggtaatcctt gtactccccg tcaatcagtt tggcggcatt gttcctggca aaccagcagt ctatctgetc ttccccgttg taaatcttcc tttgcttcca gaccactggg

gggtgagtga ggttctggct gggccctgca gggtcttctg tgagtctggc atcctgattc aggaactgac ccagcagtcc gtggcagttg ctggaaaggc cctcgctgtt ggcaatgtag 1020 aaacccaggt ggtgtcgctg gaagggcgcc ggctttttgt agaggtggat gaggatgaca aaggetatgg agecetggat ggtgaeggtg acattggegt tggeagaeae ggaeaeetee agcccccage tecccaccae cacactetgg ttgcagggga gcaccagtet gtccccacca tocaagatga etetgetegg tgtgateteg agataagate tetetggett gttgatgagg atggtgatag tgcgcaaqta aqtqcqctqt ttcttqtqqc catttqqaqq qqcqqqtqcc ccaattaact ctccgttcac tgtgacacca gagtccctgt gatcagagac cagcctgagg atgtccccgg gctgcccatc aatgttgaag cacacggtga gtctgctcag ggggaaatcc acaacaaagt ggggatcacc atccactgat gttttagaga ttttaattct tggctggtat

acttggtggc ctttcactgt taggacggcc tcaggcccct ctcccacctg aaggagcaga

ggettettga geaaaggtee tggetgegtg ceageteete geaegetetg eaccaceggt

tttttttttt ttctattttc aatcaaattt ctttttaatg aaaactaatt tttaagggca 60 120 180 240 300 360 420 480 540

1200 1260 1320 1380 1440 1500 1560 tegggtecca tggcagecga catgeegtgg geeteeteca ggccateeat gegtgggaee 1620

ggccccctca	gcttcatgga	ggtgaaggga	gtgaggaagc	ggtagctcac	agccagggcc	1680
tgggcccgct	gccgcagccg	ctccttctcc	ggttcatcgt	cactttgcag	ccaggagete	1.740
agcagctcct	ttgtggtgag	gtagctccag	agacgetega	tgtggttggt	gtccccctct	1800
ccatcgcctc	caggcctggg	gcttcctgtg	acatetttee	ctgccttctg	aggccgcaca	1860
ggcacatctg	tcttcaggat	gatgaatttc	ttactgttgc	tggcggtgac	ctccacgtgc	1920
aggtgatcca	gcttcctgtc	caccagette	cccgcaatga	tgatctccga	gccgttgaag	1.980
tagttgggga	acagggtctt	ggtggcctgc	accactgagc	tggggggata	atcgatgcgg	2040
atgtcagaga	ggagcggggt	cctgatttca	tcgtagaacc	cgatgagctg	cgagcctgcg	2100
tectectect	cgtgcacgcg	ccgtgtgagg	ccacagttct	ccagcgacag	tttctccagc	2160
agcctgaagt	ccacgtcgtt	geegatgeea	atggtgaaga	tgcagacttg	gcctcgggcg	2220
gcctctcggg	tgttgttgag	gatcttgagg	gtgtgcgtct	ccccgaccgt	gggcttgcct	2280
tccgtcagga	agacgatgag	ggacacgctc	cggtctcccg	tacgcgtggg	cga	2333

<210> 381 <211> 607

<212> DNA

<213> Homo sapiens

<400> 381
cotaggoggia chececogga cacetactee taagagtace cattacatat cagttteect caceaagete agececetet gecetetgt gagtecetg agtecetting gagtecetet tycetyceca tycagacaaa tygaageag agetyacaaa attactacage cocgaceage tyctyggggg accatgacts accecgatyg caaceccaage typetygggag accatgacts accecgatyg caaceccaage typetyggaga getactacet tytycaageag tytyaggetyg agtatgacaace acagagates gytyggecgo getectecot geagytygga accegatyct tytteceggg cotytytyte agatytyct aggttytaat acacectacaa cetygtetaat tetaaacec teagretacaace cotyggetteat tetaaacecaa accaacette taatgagaaag

60

120

1.80

240

300

360

420

480

540

600

607

660

totaaaogoa teagotaeao ogtggaggta etgotecoag accaaacett catggagaac atggagaaat totaggtgaa cotcatggto coccaecot cotchttgat otctgaato acatgagtt cacagoctto cotggocaga coctgiteaa cotcicagga acagggatto tacaaca

<210> 382 <211> 4197 <212> DNA

<213> Homo sapiens

<400> 382 geeetgetge eeetgageac aeggaceegt eegaaeegeg gggeagtgtg teetgetget coctgetgeg gggactgtcc teagggtggt ceteacetet getteeggee eetgtgtgea 120 accetaacaa ggccatette acggtggatg ccaagaccae agagateete gttgctaacg 1.80 acaaagettg egggeteetg gggtacagea geeaggaeet gattggeeag aageteaege 240 agttetttet gaggteagat tetgatgtgg tggaggeeet cagegaggag cacatggagg 300 ccgacggcca cgctgcggtg gtgtttggca cggtggtgga catcatcagc cgtagtgggg 360 agaagattcc agtgtctgtg tggatgaaga ggatgeggca ggagegeege etatgetgeg 420 tggtggtcct ggagcccgtg gagagggtct cgacctgggt cgctttccag agcgatggca 480 cogtcacgtc atgtgacagt ctctttqctc atcttcacgg gtacgtgtct ggggaggacg 540 tggctgggca gcatatcaca gacctgatcc cttctgtgca gctccctcct tctggccagc 600

acateceaaa gaateteaag atteagaggt etgttggaag agecagggae ggtaceacet

tecctetgag	cttaaagctg	aaatcccaac	ccagcagcga	ggaggcgacc	accggtgagg	720
eggeeeetgt	gageggetae	cgggcatctg	tetgggtgtt	ctgcaccatc	agtggcctca	780
tcaccctcct	gccggatggg	accatccacg	gcatcaacca	cagettegeg	ctgacactgt	840
ttqqttacqq	aaagacggag	ctcctqqqca	agaatatcac	tttcctgatt	cctgatttet	900
	ggaccttgcg					960
	caatgagagt					1020
	ggggggccag					1080
	tgagatccgg					1140
	tgctggaggc					1200
	cccagaagga					1260
	tgccttgggg					1320
	aagcaggtct					1380
ctgaagctcc	agteccaget	gaggatgggg	gcagtgatgc	tggcatgtgt	ggcctgtgtc	1440
agaaggccca	gctagagcgg	atgggagtca	gtggtcccag	cggqtcagac	ctttgggctg	1500
	ggccaagece					1560
	ctatgggagt					1620
	gatggcaggc					1680
	cgaccgagaa					1740
taaacattaa	aggageeetg	gagotgoaga	aggggggat	cauggageag	cogccccage	1800
atatasaaaa	tectgtgteg	backson-t-	acgccgaacc	egeceegaca	gagtgccagg	1860
cogocacogo	at angesta	tetegegace	cgggaggcag	agacetgtge	ggtggetgea	
cgggcagccc	ctcagcctgc	tatgeettgg	ccacggacet	ccctgggggc	ctggaagcag	1920
tggaggeeca	ggaggttgat	gtgaattegt	tttcctggaa	cctcaaggaa	ctctttttca	1980
grgaccagac	agaccaaacg	tcatcaaatt	gttcctgtgc	tacgtctgaa	ctcagagaga	2040
caccctcttc	cttggcagtg	ggctccgatc	cagatgtagg	cagtetecag	gaacaggggt	2100
cgtgtgtcct	ggatgacagg	gagctgttac	tactgaccgg	cacctgtgtt	gaccttggcc	2160
aaggccgacg	gttccgggag	agctgtgtgg	gacatgatcc	aacagaaccg	cttgaggttt	2220
gtttggtgtc	ctctgagcat	tatgcagcaa	gcgacagaga	aagcccagga	cacgttcctt	2280
ccacgttgga	tgctggccct	gaggacacgt	gcccatcagc	agaggagcca	aggetgaacg	2340
tccaggtcac	ctccacgccc	gtgatcgtga	tacacaaaac	tactaaccta	cagegggaga	2400
	tgcctactcc					2460
agtttgaggt	gaggcgggtg	gagetecagg	geographic	tetattetae	tactaactaa	2520
	cctccacage					2580
	ctccacccac					2640
	cagaccctgg					2700
	gggcgagtac					2760
agttagagt	gggcgagcac	getgtere	acagtaccat	gageeegetg	ggcagcgggg	
thethe	cgtgtggact	getgtggaea	aggaaaaaaa	caaggaggtg	gtggtgaagt	2820
ttattaagaa	ggagaaggtc	ttggaggatt	gttggattga	ggatcccaaa	cttgggaaag	2880
ttactttaga	gatcgcaatt	ctatccaggg	tggagcacgc	caatatcatc	aaggtattgg	2940
atatatttga	aaaccaaggg	ttcttccagc	ttgtgatgga	gaagcacggc	tccggcctag	3000
acctcttcgc	tttcatcgac	cgccacccca	ggctggatga	gcccctggcg	agctacatct	3060
tccgacaagt	gagagcaggg	ccagagccgt	ctagtgtcag	cagtgggata	cctgcgcttg	3120
aaggacatca	tccaccgtga	catcaaggat	gagaacatcg	tgatcgccga	ggacttcaca	. 3180
atcaagctga	tagactttgg	ctcggccgcc	tacttggaaa	ggggaaaatt	attttatact	3240
	ccatcgagta					3300
	agatgtggtc					3360
cccttctqtq	agctggagga	gaccgtggag	getgeeatae	accogcoata	cetagtatee	3420
	tgagccttgt					3480
ttagagaage	tggtgacaga	cccataaata	acacaccta	tasatattas	tagatataca	3540
taaasaaaa	tgtttcgagt	2222233344	acacagooog	ttatataaaa	tagaccacaca	3600
gagaagagg	acaggagect	aaacaagcca	gaaagtggag	nannahhha	tgcgagcccg	
						3660
	aggeteetaa					3720
accayetaaa	caccaatttc	Lecetgettt	tetecaettg	gtttggaaaa	tcacacagtt	3780
	atctgtttgg					3840
	caggtttgat					3900
atttattaca	tagatttgga	attcactttt	ttcatgacct	agaaaaaaac	attccagtgt	3960
	tatattatta					4020
ttetetttet	acttttgtat	atgtgcatgt	tttgtttcct	ctgacttggt	atatgctcat	4080
ctgagtgacg	gatatgtgaa	atttgtagaa	ctggttagtc	aaatggccaq	actatttcat	4140
taatttattt	cctcaaatgc	ttttcaaatt	aaagcacctt	tgttagtaaa	caqttaa	4197
	-		-	-		

<210> 383 <211> 1843 <212> DNA <213> Homo sapiens

<400> 383

ctggtattca tacagtgaca gagggagtgt ttttagaaat ttatagctgt ttctaggtga aaacactggt tgatttagct cccttggtaa gaqcactgaq caqaaagaag ttccctatca 120 aatgggtgtg tggagcagcc ctgttctccc catcccgtag agctccagga agttaaccag 180 ggacttcage tgcgacctgc agatttctaa gcccccctgt tatttctctg tcttttacgg 240 geotigtigtat tteagaettg gtggtggeag teaaeggggt etggateete gtggagaeat 300 ttatgctgaa aggtgggaac ttcttctcca agcacgtgcc ctggagttac ctcqtctttc 360 taactatcta tggggtggag ctgttcctga aggttgccgg cctgggccct gtggagtact 420 tqtcttccgg atggaacttg tttgacttct ccgtgacagt gttcgccttc ctgggactgc 480 tggegetgge ceteaacatg gageeettet attteategt ggteetgege cecetecage 540 tgctgaggtt gtttaagttg aaggageget acegeaacgt getggacace atgttegage 600 tgctgccccg gatggccage ctgggcctca ccctgctcat cttttactac tccttcgcca 660 tegtgggcat ggagttette tgegggateg tettececaa etgetgeaac aegagtacag 720 tggcagatgc ctaccgctgg cgcaaccaca ccgtgggcaa caggaccgtg gtgqaggaaq 780 getactatta teteaataat tttgacaaca teeteaacag etttgtgace etgtttgage 840 tcacagttgt caacaactgg tacatcatca tggaaggcgt cacctctcag acctcccact 900 ggagccgcct ctacttcatg accttttaca ttgtgaccat ggtggtgatg acgatcattg 960 togoctttat cotogaggee ttogtottoc gaatgaacta cagoogcaag aaccaggact 1020 cggaagttga tggtggcatc accettgaga aggaaatete caaagaagag etggttgeeg 1080 tectggaget ctacegggag geacgggggg cetectegga tgtcaccagg etgetggaga 1140 ccctctccca gatggagaga taccagcaac attccatggt gtttctggga cggcgatcaa 1200 ggaccaagag cgacctgagc ctgaagatgt accaggagga gatccaggag tggtatgagg 1260 agcatgecag ggageaagag cageagegae aacteageag cagtgeagee eccqeegeee 1320 ageageeece aggeageege cagegeteec agacegttac ctageeeage geeegaaage 1380 egtetettet atgeaataac acaatagtat tactetactg egatgtacgg aactgeggtg 1440 tgtgtacaca tactcacgta tatgcacata tttatataca ggaagaaaaa aqacagacaa 1500 gatggggctt ggtttataac caccttgccc tgtcttcctt aactccaqaa gccaqtttqq 1560 tgaggggtgg gggtgcggcc accaggtctg agctcttcct actqtqqaaq qctccagaaq 1620 gcccttcaca aggagacece teacetggat ceaqtegact geggggettg ecceteatgt 1680 gggctggcct ccatcggcca cgtccaaagc tqtcactqct actqcttcaq qctcacatcc 1740 coccegacetg atggcgtgcc cgccccetct ccctgcgggc catgccacag gtttctgtgt 1800 tttgctttag ggacagaacc acttaggaag gaaagaactc ccg 1843

<210> 384 <211> 1459 <212> DNA <213> Homo sapiens

<400> 384

ctggegggcg tgggaaccca ggeccegecg aggeggecag gaggtgagat ggeagetggg 60 caaaatgggc acgaagagtg ggtgggcagc gcatacctgt ttgtggagtc ctcgctqqac 120 aaggtggtee tgteggatge etaegegeae eeceageaga aggtggeagt gtacaggget 180 ctgcaggetg cettggcaga gageggggg ageceggaeg tgetgcagat getgaagate 240 caccgcageg acccgcaget gategtgcag etgegattet gegggeggca gecetgtgge 300 egetteetee gegeetaeeg eqaqqqqqq etqeqeqe eqetqeaqaq qaqeetqqeq 360 geogegeteg cecagoacte ggtgeegetg caactggtat etgegegeeg gegeegageg 420 getggagget ttgetggegg acgaggageg etgtttgagt tgeatectag eccageagee 480

egaceggete	cgggatgaag	aactggctga	gctggaggat	gegetgegaa	atctgaagtg	540
eggetegggg	gcccggggtg	gcgacgggga	ggtcgcttcg	gcccccttgc	agcccccggt	600
gecetetetg	teggaggtga	ageegeegee	geegeegeea	cctgcccaga	cttttctgtt	660
ccagggtcag	cctgtagtga	ateggeeget	gagcctgaag	gaccaacaga	cgttcgcgcg	720
ctctgtgggt	ctcaaatggc	gcaaggtggg	gcgctcactg	cagcgaggct	geegggeget	780
gcgggacccg	gcgctggact	cgctggccta	cgagtacgag	cgcgagggac	tgtacgagca	840
ggccttccag	ctgctgcggc	gcttcgtgca	ggccgagggc	cgccgcgcca	cgctgcagcg	900
cctggtggag	gcactcgagg	agaacgagct	caccagcctg	gcagaggact	tgetgggeet	960
gaccgatccc	aatggcggcc	tggcctagac	caggggtgca	gccagctttt	ggagaacctg	1020
gatggcctta	gggttccttc	tgcggctatt	gctgaacccc	tgtccatcca	cgggaccetg	1080
aaactccact	tggcctatct	gctggacctg	ctggggcaga	gttgattgcc	ttccccagga	1140
gccagaccac	tgggggtgca	tcattgggga	ttctgcctca	ggtactttga	tagagtgtgg	1200
aaraaaaaaa	acctgctttg	gagatcagcc	tcaccttctc	ccatcccaga	ageggggett	1260
acagccagcc	cttacagttt	cactcatgaa	gcaccttgat	ctttggtgtc	ctggacttca	1320
tcctgggtgc	tgcagatact	gcagtgaagt	aaaacaggaa	tcaatcttgc	ctgccccag	1380
ctcacactca	gegtgggace	ccgaatgtta	agcaatgata	ataaagtata	acacggattt	1440
tgatgtgaga	aaaaaaaa					1459

<210> 385 <211> 2408 <212> DNA <213> Homo sapiens <220>

<221> misc_feature <222> (1)...(2408) <223> n = a,t,c or q

<400> 385

ttttttttt ttcgagataa acctttttat ttatttatgc ttctccattt tgtttaaaac 60 aacaacaaca accaccttaa tqtaactqac agecetteec cetcaccetq cetcqqqetq 120 qqqqtaqtta atqqqqaaat qqcccccaqq qtqqqqctqa ccaqaaqaqc ccctcaaqqa 180 geteatggag eccaaatece etgeeetggg gaggggaeet gtagtgtgtg aegggageet 240 ctcccgagcc tctgcttgta ccatcaaaga tgcccttggc caacaagggt caggaagcat 300 gggggaggga tttcggcctc ctctgtccct acccagccca atctcacgag cagggctggg 360 gggtttaaaa agggtggagc gggtggggtt ggctcacacg aaggagtact ggttgttaaa 420 tggcccctgg ggtggccccc ttcctctcca tcacccccct agtggtgact gctgcagctg 480 caccaattgg gggcaccccc gcgtccccac caggacccag gcgcccttgg gcctcttgag 540 cetggggect atggccetet cecaatteac ceacegggac cagetaaace acggggacea 600 gestetteeg ggaccestee accequeege titetettte tettqeetet cittqqetqe 660 tgeggetgec tnttgecege caetteetgg egeceetega egectettte tteeceagge 720 tgtgggggat ctgtccatga agggggttca gggggctggg gtgggtcatg ggaggtggtc 780 ggttacacag teactegete egaagggeat gagggtgeag gaggeatteg gggtggeate 840 catetecete geacacecee geatggetee cageetgete ceggeeteae ttettgggtg 900 caegggeace testeceetg cagacetget etgeteacee tgetgteget gggaggatgg 960 gacatagetg acaaggacaa catcactgga geeteeegae tecaaaggga tggggtgeae 1020 ceggaagtge tegageatat egaaaatgga etggaaceae aggtgetgga eeeggeactg 1080 accetecteg ttcagcgaca aacgcaggtg cttggccttg ccctggaagt tgaaggtgag 1140 gacgtattca eccegcettg teteactetg gegeaccagg aagacacegt gggagecagt 1200 geogecagte ageaceaact gtgcagcett gageegagag ageatecegt ggaaceaagg 1260 ataccetgag aggggetggt ecceetcace gecetetgge tecceeetgg aacaggaagg 1320 accetgtgge tgttteegga gtgtecaagg gagggtaggg ggetgagagg ggatgaactg 1380 tecetgetgg gggteeetet teaatgggga tgeggggggg caactetggg ggaageagtt 1440 ccatcgagtc aaaatgggag gcggcaatgg aggcagagct gggggagatg gatgccgagg 1500 ggcggtctga gaggccccca tatgccccct gcgacaggcg gtcattgctc tcgctgggtc 1560 caagcagcag gtcctggctg ggtagactct ccgagtgatt caggcaggac agctccaggc 1620

```
tgtctgtgtt ctcccttgta aggaatgagg tcccaggggc cagagggagg gtcatggggc
ggggactggt agcagggcag ggtcctgggc tcaggcattc ttggatgtca qacacccaqq 1740
cettcacatg etgggcatce actgteteca tgatatacte ggatggacet tecacettaa 1800
ccacaaacgt gttctcccgg tcaggcatct ccagggctgt ggttgtccgg acgtctgtga 1860
tagaaqaqca ggggatgctg agtcggggcc gagaggcctt gggtggtaca aagaactcca
                                                                   1920
ggcgacttcc tectectect teteetteae ttegaageag caggegacae ttetgecaet
                                                                   1980
gaggetgece tecteccet gaaggaggee cagecacece tecteccegg eccaeteegg
                                                                   2040
ctgggtcagg ggctgcctcc tcagccccca tgaaactcag cagctcttcc ctctgcacca
                                                                   2100
tecetgetec atectteaag gegeeeecte eeegactgag teteageete teaaaaeggt
                                                                   2160
gagtecatet tteeccaggg gacgttecat caetgaccag teecctacca acgqteccag
                                                                   2220
ccccgccaga ggagttggag ttgctgtttc cacctaagac tggggggcct gacgaggtct
                                                                   2280
ccaggggccc agcggaggag ggagggtcaa cggtcccccg ccactgcagg atgccacgga
                                                                   2340
etgageeteg gacagagega cecaetgaac geagggaaaa gegettettg agettegget
                                                                   2400
tggaggag
                                                                   2408
```

<210> 386 <211> 2204 <212> DNA <213> Homo sapiens

~~002	500					
ttggggaacc	cccagggttt	tcccatcccc	ccggtgtaaa	accgcggccc	aggaaatgga	60
ttttgggggc	cccataaaaa	aacttttgcg	ttgccagccc	ccggacgtta	acctggatcc	120
tttaaaacgg	ccccccttt	tttttttt	tctttaacaa	aatttttatt	taataaatgg	180
ttaaaatcgc	agtgccaaaa	atacattgac	atttagcaat	ttcactgaaa	ggaagaaact	240
acagaatgca	cggtttcaga	aagctatttt	aagttattta	caaataaagt	atctaaaact	300
	ctctgtatgc					360
	tettaaacca					420
tccagagact	gaaaccgttt	ctatccggtc	agtggcaaaa	ctgttgaaag	ggcaatagtt	480
	ggttttatat					540
	tgcgggcatg					600
	atggctcaga					660
acaaacgaat	gaaacccaaa	gtggatgtcg	ttctcacage	actgaaagtg	cttcaggact	720
	caatactaac					780
	tetgttttgg					840
	tetgetcaat					900
	tcaccctctg					960
cttcccagtc	acactcgggg	tcatttacac	gtttctggga	tgcccttgct	cgtccatgga	1020
	gtgcagtgac					1080
	tgcagatect					1140
	gctgcaaggc					1200
ggactgtcgt	cacacctctg	cgctcttccc	agteteteca	tggcctcccc	eggageeeeg	1260
ctgtcctggc	teccettett	ccctctgtct	tggccaggtc	ctttccccca	tototgotoa	1320
tectcactcc	ttctggaaag	ccgttcaggc	tcgtggtgag	ctctgtgcct	cctgccgtca	1380
tccacatggt	atctttgtgc	ttcagattct	tgttcttgag	atctctccac	atccctgtgc	1440
tctttatcac	tgccgctgtg	tgacgtctcc	tggggctcct	ccagcgagcc	ttccatgggc	1500
ctggctttta	cgactgcacc	gggggcacag	gattectget	tgccacctcc	agtatcaatc	1560
tectetecte	tttcttttgg	tttctctgtg	gttggttcct	ctccctttc	tggtttctta	1620
agaagcttaa	tecttactte	tttctctgca	attttcttct	gtttatctgt	ctctttttt	1680
ttgcatettt	cttcttctct	tettettett	ttttcctctt	cccgcaaacg	tttctttct	1740
aactctctcc	tecteegtte	ttctcgcttc	tettetegaa	ttctctgctt	ttctaatttt	1800
ctatttttaa	tatattccaa	aagaggtgtg	gttcttctag	caatgagete	tettgtette	1860
gcctccatct	ccccagcag	agteteaggg	ttggcactgg	tettetette	ctccacacag	1920
taggtttcta	aaaacttctt	atattetgga	tetttgetgt	caaggaagat	atatccatca	1980
aaacgatctc	taaaaagaag	gatgtcatca	ggatteetaa	aattaatgta	tgctcttgag	2040
tagagatgag	gataaagact	caggtcggcg	gcgaagaact	cgaagtagtc	gtgtgctggc	2100

ageggggca getgeteete eagetgetee triggtgagge eeggaggeag geggeggate 2160 accacetgeg gggagegee ggeegtteee aceggggcae gaaa 2204

<210> 387 <211> 798 <212> DNA <213> Homo sapiens

<400> 387

tttcgtagca aacaggtttc acgaccactg ctctctggag tcttattcct cagagtatga 60 geocttgace aaggageatg gaatgeatea cetatgtttg aacaagggeg eeagatgace 120 tetgeggace cagggtttgg gaagtgetga tgtggageea caggaettgt tttagggegt 180 gtggggcgtg tgtgtgagtg ggcttctgca ggtgggcagc cagcgggcac aggcgtggag 240 agcatggtca cccatggaga caccgctcac ggggactttc ctttggcccc acatcccgca 300 gggtctcttc ttcgatgatt cctatggctt ctacccaggc caggtgctca ttggccctgc 360 caagatette tecagegtee agtggetgte aggtgteaag eeegtgetea geaceaagag 420 caagttccga gtggtggtgg aagaggtgca ggttgtagag ttgaaagtta catggattac 480 caagagttte tgtecagggg gcaeggacag egteageeec ecaegtetgt cateacceag 540 gaaaacctag gcagggtgaa gcgtctcgga tgctttgacc atgctcaqcg qcagcttqqq 600 gagggetgtc tgtatgtctt cccagccaag gtagaqccaq ccaaqattqc ctqqqaatqt 660 ccagaaaaaa actgcgccca gggggagggc tctatggcca agaaggtgaa gcgcctgttg 720 aagaagcagg ttgtgcggat catgtcatgc tccccagaca cccagtgttc ccgggaccat 780 tecatggaag acccagae 798

<210> 388 <211> 4530 <212> DNA

<213> Homo sapiens

<400> 388

tttegtgaca gtagecectg eteggeette gagtteeact geetaagtgg egagtgeate 60 cactccagct ggcgctgtga tggtggcccc gactgcaagg acaaatctga cgaggaaaac 120 tgcgctgtgg ccacctgtcg ccctgacgaa ttccagtgct ctgatggaaa ctgcatccat 180 ggcagccggc agtgtgaccg ggaatatgac tgcaaggaca tgagcgatga agttggctgc 240 gttaatgtga cactctgcga gggacccaac aagttcaagt gtcacagcgg cgaatgcatc 300 accetggaca aagtetgeaa catggetaga gactgeeggg actggteaga tgaacecate 360 aaagagtgcg ggaccaacga atgettggac aacaacggcg getgtteeca egtetgcaat 420 gacettaaga teggetaega gtgeetgtge eeegaegget teeagetggt ggeeeagega 480 agatgegaag atategatga gtgteaggat eeegacacet geageeaget etgegtgaae 540 ctggagggtg gctacaagtg ccagtgtgag gaaggcttcc agctggaccc ccacacgaag 600 gcctgcaagg ctgtgggctc catcgcctac ctcttcttca ccaaccggca cgaggtcagg 660 aagatgacgc tggaccggag cgagtacacc agcctcatcc ccaacctgag gaacgtggtc 720 getetggaca eggaggtgge cagcaataga atetactggt etgacetgte ecagagaatg 780 atetgeagea eccagettga cagageceae ggegtetett ectatgacae egteateage 840 agagacatec aggececega egggetgget gtggaetgga tecacageaa eatetactgg 900 accgaetetg teetgggeae tgtetetgtt geggatacea agggegtgaa qaggaaaaeg 960 ttattcaggg agaacggctc caaqccaaqq qccatcqtqq tqqatcctqt tcatqqcttc 1020 atgtactgga ctgactgggg aactcccqcc aaqatcaaqa aaqqqqqcct qaatqqtqtq 1080

ctcaptggc gotctactg gittgactc aacttcaag catchtgag gatgaaag gitgggcca accettcic titggcgtct ttgaggacaa agtattttgg acagatatca tcanegaag catchtgag gatgaaag gitgggcca accettcic titggcacacgoc tcacagga agtattttgg acagatatca tcanegaag cattttcagt geaatatggtc ttgaggacaa agtattttgg acagatatca tgaccaag gatgaagac accettgagac tgaccacaaga ttactggc cattacacag caagaggat gaaccaag gatgaggac tcacacacagag ttactggc cattacacagag tgaccacagagacacacacacacagagacacacacacaca							
aatgorgoca acogaagae catchtogag gatgaaaaga gottogocoa cocottotoc ttagagocaa agtattatag acagatataa taaaaaaga gottogocaa coctacoaa gottogocaa coctacoaagat gottogocaacogo toacagotto cogatytoaa ttytogotga aaaacotaat gtcoccaaga gatattygot cocatogoaga atgorgotaa gottogocaacogo dacotyagoca atgorgotgo coaquatety teococcaa acoctocaa agottogocaa aggyttyagg cycaataga gaacaacoaco cygoctytto cogacacotco agottotyago gottogocaco gacotyagocaco gottogocacoc agottotyago gottogocacoc agottogocacoc agottotyago gottogocacoc agottotyago gottogocacoc agottotyagocacoc agottogocacoc ag							1140
teggocgtet tegaggaaa agtatettag acagatatea teaagaage catteteagt geatatggtee tettecacaa ecteaceag caagaggag tgaatggtg tgagaaggac acceptagac atagoggetg coagtatetg tgetecetg cocqaaga tagaaggage tagatggte tggecaggat atagaggage tgetgetgg gaatggtg tggcaggag acceaceag gglaaggaggaggagggagggagggaggggagggggagggggg							1200
gocaacogo toacagotto ogatytoaac tytytagoty aaaacotact gtococaga yatatygtoc tettecaaca octaccocac caacococac tocococacy caacococac accopagoa atgogogot coacytacty tycococacy toacococacy tocococacy cocococacy tocococacy toacococacy gocacycocy caacococacy gocacycococacy cocococacy gocococacy							1260
gatatgyteo tottocacaa cotacocag coagaagat tgaactgyte tgagaagacc accocagoca atagoggyte coagtactte tgococagat caccocacaca tgococaa ttacotagog otgocogaa gagatgotge tggcagga actacacaca tgococaa gagattagag cygactgyca cacacaagag gagatgagag cygactgyca cacacaagag gagatgagagagagagagagagagagagagagag	ttggccgtct	ttgaggacaa	agtattttgg	acagatatca	tcaacgaagc	cattttcagt	1320
accetyagoa atgoggetg coaquatetg tgectocty cocogaagat caaccoccac lecogecocaca systythago etgecagtgc caaccaagag gaattagagac tgectoacaa gaggethaga getgecacac caccaggag caatcaacac taggetagat gectgecocacacaggethagagacacacacaggagacacacacaggagacacacaca	gccaaccgcc	tcacaggttc	cgatgtcaac	ttgttggctg	aaaacctact	gtccccagag	1380
coccoaagt thacetyce otgecogae geategete tygecaggae actagagge legectyce acagedes aggetyses geacagea acaacacae cygectyte cogacacte agetetyses geacageae acaacacae cygectyte cogacacte agetetyses geacageae acaacacae cygectyte cogacacae agetetyses geacageae acaacacae cygectyte cogacacae agetetyses geacageae acaacacae cygectyte cogacacae agetetyses geacageae acaacacae agetetyses geacageae acacacaeae gegetyses cogacacae agetetyses geacageae acacacaeae gegetyses geacageae ageteaee agetetyses geacacaeae agetetyses geacageae acacacaeae geacacaeae agetetyses geacacaeae agetetyses geacacaeae agetetyses geacacaeae tygecotyse geacacaeae agetetyses geacacaeae agetetyses geacacaeae agetetyses geacacaeae agetetyses geacacaeae tygecotyses gyacacaeae tygecotyses gyacacaeae agetyses gyacacaeae agetyses gyacacaeae tygecotyses gyacacaeae tygecotyses gyacacaeae agetyses gyacacaeae tygetyses gyacacaeae agetyses gyacacaeae agetyses gyacacaeae acacacaeae agetyses gyacacaeae acacacaeae agetyses gyacacaeae acacacaeae agetyses gyacacaeae ageagaeaee acacacaeae agetyses gyacacaeaee ageagaeaee acacacaeaee agetyses gyacacaeaee agetyses gyacacaeaee agetyses gyacacaeaee agetyses gyacacaeaee agetyses gyacacaeaeee agetyses gyacacaeaeeee agetyses gyacacaeaeeeeeeeeeeeeeeeeeeeeeeeeeeeeeee							1440
ggotcacca aggotaga ctgeactaga cacaaccac caggotyte cagaccact in ggotcagote acaagcaca cacaaccac caggotyte cagacact in agractaga cagacacac caggotyte cagacact in agractaga attagaaaa agcacata otgotyte cagacactaga attagaaaaa agcacata otgotyte cagacactaga attagaaaaa accaaga cagtaga cattagaaaa cagacacac cagacatac agaagaacaca agaagataga tegacattig cacaactag gaagacacac cagacatac agaagacacac agaagataga tegacatig cacaactag gaagacacac cattactaga acaaccac tegacaacac cagacactaga agaagacac tegacaga dagaagacac tegacaga gaagaagacac tegacagaaga agaagaagacac tegagaaaga agaagaagacac tegagaaaga agaagaagacac tegagaaaga agaagaagaaga agaagaaga agaagaag							1500
ggictagetce acagcogtaa ggacacagca cacacacac cggcctgttc cogacacctc agctctgggc gacgctgggcacca cacgctctggc gacgttyctgg gcaagaggaa attgagaaga agccagtag cgtgaggct tetptcettct atggaagaac tggcgctta agacacacacacacacacacacacacacacacacacac	tcgcccaagt	ttacctgcgc	ctgcccggac	ggcatgctgc	tggccaggga	catgaggagc	1560
cogyctycet guggocacco ctgygtcae cacgstggga atagtgaaaa tytotcacca agtctcaggo yacgttyttg goaagaggaa attgagaaaa agcocagtaa oftgaggot 11 atgattcattg toctoccat cyttytotcattg toctoccat cyttytotcattg toctoccat cyttytotcattg toctoccat agaacaa ctgagaaaa cyttyagaaaa cogyctatca agaacatca agaagacaac ogyctatca agaacatca agaagacaac ogyttatta agaacatca agaagacaac cyttottota gaagacagatg yacgstga gagdagagat yacgstgag agaagaagat gydagacagatg gagdaaaac tytgotgag gotaccocc tycocagaac cottoctag agaacagatg yacgstaaa gydaacacca cattottaa tattattat tattgagaga agaagacca cattoctaga gacagatg cocatyagat tytyagatta tattattata totgggaga agaagagca cyttyagaagatgagaa aacagycca gyggabaagag gagaacagag gagataaagag gagataaagag gagataagag gagataaagag gagataaagag agaagaaca coctygocag aacaacaatcat caaacaatga agaagaacaa gagatgaaca acagaacaa coctygocag gagaagaaga gacaacaaca cacatotaa gaatyaaaga gagatgaaaga agaagaaca acagaagaaga coctygocag coctygocag coctygocag coctygocag coctygocag coctygocag cocagaagag cyttyagaa gaacaagac cytyagaacaa acagaacaa aacaacaaga gagatgaaaga gaatyaaaga gaatyaaaga gaatyaaaga gaatyaaaga gaatyaaaga gaatyaaaga gaatyaaaga caacaaca cocygaaca cacaacaca cytyagaacaaga gaatyagaaga caacaaga gagagaagaaga gaatyaaaga gaatyaaaga agaacaaga caacaacaca cygtyacaa aacaacaca cytyacaa aacaacaacaa cytyagaacaaga gaatyagaaga caacaagaagagagaagaagaagaagaagaagaagaagaa							1620
agototogge gadettyotg goaajaggaa altajagaaga agocagtag ojtajaggot tottottotto totgotoggy tottoottot totgotoggy tottoottot totgotogagaagaa olgoggotta agaacatoaa agogatagaa agogatoaac tittgacaaco cogtotatoa gaagatagag tyocagtata goaajagaaga agogatoaac tittgacaaco cogtotatoa gaagatagag tyocagatata goaajagaaga agogtogaaca tottoogag agogatagaaca gaagataaca gaagatagaaca agaagatagaa gaagaagaa agogatagaa totgotogagaaca agaagaagaa agogatagaa totgotogagagaacaa agaagaaga agaagaaga gagagaagaa gagaaga							1680
cattocatts tecteceat egitysteet egitysteet tegetysgs tetteette tagsagsags toggegstata agacatea asagsataac egitysteta agaacatea agacateac tittgacaac cogitateac gasagacacac gagagsags togagstags tysegstebg agagsagsags tysegstebg agagsagsags tysegstebg agagsagsags tysegstebg agagsagsags tysegstebg agagsagsags tysegstebg agagsagsags tysegstebg tysegstebg tysegstebg tysegstebg tysegstebg agacagsags tysegstebg tysegstebg tysegstebg tysegstebg tysegstebg tysegstebg tysegstebg tysegstebg tysegstebg tysegstebgg agacagsags agacagsags tetgetystat tattattat tetgggags agacagsags tysegstebgg tysegstebgg tysegstebgg tysegstebgg agacagsags agacagsags gysetteac cattotett coaggags agaagsags tetgetysgs acacags agagsags agacagsec ectygecty coteatocac cattoteas gecaaacce taattotet caaggags agactogags coctygecty coteatocac cattoteas gecaaacce taattotet caaggags agactogags agastoaacy gasteaatgg coctygecty coteatocac cattoteas gecaaacce taatoteag gastoaacgg systemate gastoacce gastacatga goteggaad agactygst gotettysco tyteacocce gastacatga cocacaatg tottocagag tysegstept actogsgaad caaacaag gastgagag goteggaaa gastgagst gotegaaag acacags cysgysteet totacaaacaa gattagags gastgagag agactyags acacags cystystocac gystystocac tysegstebt totacags tyteacags tysegstebg cocacaacaacaacaacaacaacaacaacaacaacaacaa							1740
atggaagaaa							1800
gagacagatg yteaghtoby gagatgagatg gootgaaa totgotgag gtocogtocc 2 gagacagatg yteaghtoby agagatgagatg gootgaaa totgotgag gtocogtocc 2 gagacagatg yteaghtoby gagatgagatg yteaghtoby gagatgagatg gagatgagaca 2 aagatgacaca 2 aagatgataca 2 aagatgataca 2 aagatgatgaca 2 aagatgatgatg cocatgaaa totgotgatg yagatttag thitteteeth toctoctgaa 2 gagatagaag aacagcoc 2 gagagacagat gagatagaag gagatgagatg gagatagagat 2 cagatgatga gagatgagatg gagatagagat 2 cagatgatga aacagcoc yagagacagat 2 cagatgatga gagatgagatg yagatttag thitteteeth cocaggagt 2 cagatgatgatg acagatgatg gootgagaa agatgaaag gagatgaagat 2 cagatgatga gagatgagatg gootgagaa agatgagacc 2 cotggoctg cotoatocac caahtotaa gocaaacoc taaatcagg aytoaacgg yagatacagg cocagagatg cocaaacag cagatgagaca aacggagacc 2 gaatcatgac coacocagtg tothtogag tgggthigt cothoctag gocagagag yagatcatag yagatcatag yatcacagatg attagagatg gactgagaa agatgagaag yagatcacag yagatgagatg yagatgaga yaga							1860
gagacagatg gtoagtotg aggatgaegt ggotgaaaa totgotgga gtocogtocc tycocaga aagacatgot bycocagagot ttgtttata tattattata totggaggo gagacaggot toggatattat tattaatgae gagacaggot totgagacatgot pocaatgoad gottoggatg ggatttata tattattata totggaggo gagacaggot totgagacagtg cocatgoad ggatgagacag gagacagot gagatagaca catticett cocaggaagtt tragatttat chocacagg ggggacag gagacago gagacagoc actitect cocaggaagtt totgagtte chocaggocag gagacago gagacagoc acacagocag gagacagoc catticett cocaggaagtt totgaggocag gagacago gagacagoc cacagocagga gagacagoc acacagocaggacoc acattocagocaggacoc catticett cotagaagoc cacagocaggacagocagocagocagocagocagocagacagocago							1920
geocagaac cettectaga acctoscog cettetta tetaaagaca gagaagaca aagacataca tegagacagt tegagacagt tegagacagt tegagacagt gagacagacgt tegagacagt cocagacagt cocagacagt tegagacagt gagacagacgt tegagacagt cocagacagt cocagacagt geocagagagt gagatagagag agacagacgt tegagacagt cocagacagt cocagacagt cocagacagt gagatagacag gagacagacag gagacagacag gagacagac							1980
aagactagoc bgocagagot tightitata tattattea totggagog agaacaggot clogagaactg cocagoaad goctoggat gogatteg totettet tectogaa 2 gagataagaga aacagocog gaggaccag gatacacco coatitoto cocagogagti titacagotic totcagogaa gagagagagagagagagagagagagagagagag							2040
cogacaagt cocatgoaat gocttaggtt gggattatgg tttettetett tectectaa gggataagaga aacaggeog gggggacaag gatgaacat cattetetet caggaggtt 2 ggataagaga aacaggeog gggggacaa gatgaacac cattetetet caggagacac 2 ectggeotg cotatecac caatetetaa gccaaacac agatgaacag agatgaacac aacggaaca cacgggacc 2 ectggeotg cotatecac caatetetaa gccaaacac agatgacac aacggaacac aacggacc gaatcatgac cacacagt tettteogag teggtttgta cottectaag gcatacatgac cacacagt statteogag tgggtttgta cottecttaa gccaagagaag agatgaacag ggattatagg cotagagaa gaatcaggat gacttgagg tggatcatagg cagagacacag cagagagaga gacatagat cacacaata tattaagaga gotagagta actaggacac aacggagaag attaagaga gacagaga gacatgagt cacacaaga gatgaacagag ggatgatga cactggtocac cttaatattt 2 tattaatgtog taggaccaagag gacagagag agactgagt cacacacac tattaatttt gattatttt cagtteagag ttggatgaagag accaacacac taggtsgatete to gacattaagag ttggaacagag cacacacag ttggatgata gattggagg gacagagagg gacagagagg gacagagagg gacagagagg gacagagagg gacagagagg gacagatgag cacacacac tattatttt gaattttt cagtteagag ttggaacag gacacacag cotagacaca cacacacac tattatttt gacattttt cagtteagag ttggaacag gacagagag gacagagag gacagagag gacagagag gacagagag gacagagag gacagagagag							2100
gatheatyse groups of the terms							2160
ttgagtttet etceacegt acacaatect caacaatgga agatgaaagg geagggatg cleagggacd caagggacd gaagacaatg ggettteaa cacaacaaga agatgacaca aacggaccc cetggactg cetcatecac caatetetaa gecaaacec taaatcagg agteaacgg cttgetaaga cagatggatg geetttee tettacetett ctatgcaag cttgetaaga gaagaggatg geettgatga geettgatga geettgatga geettgatga geettgatga geettgatga geettgatga geettgatga geettgatga geettgatacaccc taataatgac cacacaatg atgecactgat cacacaatg atgecactgat gacttgatga geettgatacac gattacatga gattacagga gacgagatga gactgagt cacacaatg atgecactgat cacacaatg atgecactgat cacacaatg atgecacac gyttacttg geettgagga cacacagg cagacacaga gaggggatga cacacaga cacacacacacacacacacacacacaca	tcggacagtg	cccatgcaat	ggcttgggtt	gggattttgg	tttcttcctt	tcctcgtgaa	2220
ccaggocag agaagcaagt ggotttoaac accaacagc agatggcacc acciggocott cotatocac caatocttaa gccaaaccc taaatcaag agtcaagtg gtttacttottett ctatgcaagc cttgctagac agccaggtta gcotttgccc tgtaccccc gaatcatgac caaccagtg totttcagag tgtatgacg catcaggatg tctttaagtgc gagtatgag cotaccaggt totttcagag tgggtttta ccttcttaa gccaggaaag ggattatgac caaccaggt totttcagag tgggtttta cttcttataa gccagaaag ggggattatgag catcaggac accaggatg gagtttagtatg catcaggac caccaggat caatgagac accaggatg ggattatatgat attataatta attaaatta attataatta attaaatta attataatta attaaattat totacaccaactat totaccaaccac tgattacttt attaagtgcc tgagacaccc ggttaccttg gccgtgagga cacgtggct gcaccaggt gtggtgtgtca ggadacacagc ctgtgtgccaa tcgtgcaac cotaaccaac ttccattccc cagat cotaccacac ttccattcccagac cactaccacac ttccattcca							2280
cctggcctg cctcatceac caatctctas gccaaaccc taaactags agtcaacgtg tttatactctt ctatgcaags cttgctagaac agccaggtta gcctttgcagcagaaga gagtacatgts cccacaatg tctttcagag tgggtttgt gccttgaagaaga gagtacatgts cccacaatg tcaccaaatg atgccactgtg aatccgtgt gaccaggag caacacaaca							2340
tettactott ctatgoaago cttgotagaa agocagetta gocttigoco tgtoaccoo gaatataga coacocaget totttogaag tgggttta cottocttaa gocaggaaag gagatagag cyagatagaga coacocagaga gactagaga gogacagaa caaaataat toacocagaa taatagaga gagtagagagagagagagagagaga							2400
gaatcatagac ccaccaagt tetttegags teggittegta ecttecttaa gecaggaaga gaatcatagac setteetaat gaatcatagac setteetaat gaatcatagac teaccaaata atacaacata setteetaata tetteetaata atacaacata setteetaata atacaacata setteetaata tetteetaata atacaacata setteetaata tetteetaata atacaacata setteetaata atacaacata setteetaata tetteetaata tetteetaata atatatat							2460
ggattcatgg ogtoggaaat gatctgotg aatcogtggt ggcacogaga coaaactat tatcacaaagt abtcocatt cocagagacag agcotgagt aatgggacac ottatatatt 2 attaagtgo tgagacacog ggttacettg gcogtgaga cacgtggct gacaccaggt gtggtgctoc ggacaccag ctgtggcca tectocogac cocaccac tecatrocc gtggtctocot tgacattte cagttcagag ttgtacattg gtgacatttg acattgtgt tattatatttg cactgttte togtggtagt gtgtacattg gtgacattg gatcacagg cagtggaagg ggcaggtga coggaaccaggaagg ggcaggtgaat gagaactg aaacactga ggcagattg acattgagt tocattgcaaat gaatgcogg cattgactt cocaactttg tgtgagat gacacaggagg ggcaggtgaatg gacacactgag gtgcagattg acaccaggac ggcagattg acaccaggac ggcagattg acaccagtag gtcaaattgaga gactgagaagg ggcaggtgaatg gacacactag gacagtgaaacccgtacaacactga gggaggatga caccactag gtatgcocaga ggcagatgaga gaccaggaagg ggcagaggg ggtggaagg ggcaggagg gacaggaagg gacaggaagg gacaggaagg gacaggaagg gacaggaagg gacaggaagg gacaggaagg gacaggaagg gacaggaagg gacaggaaacccgtacagaaaaaaaaaa							2520
tcaccaaatg atgocactic coagagagaa agoctgagto actggtcac cttatatttt zattaagaac bagacacaag cggttactg goctgagaga cacqagact gacacaag tgggtcyca gacacaaga ctggtgcoca tectocogac coctaccac ttcattcattc gattattttg cactgtttc cagticagag ttggacaca tectocogac coctaccac ttcattcattcattttg tatattttg cactgttttc tatatatttg tgatttgttgt tatattttg cactgttttc tatattattg gattattgttgt tatattttg cactgttttc tatattattgt gattattgttgt tatattttg cactgttttc tatattgtggt gattaggag gacagagag gacagagag gacagagag cacgagactg coggaacttc aaagoctgag cactatcatt tatattgttg cactgtttta aaaacatgca cactattgtgtt tatattgtcg cacaccatt tocaaacatg gacagagag gattgagact cocagcatttt tatataaaaa tatacaaaaaatt agoctocaaga gattgagaac accoggtatt tatagacac gagagactga gagagagaa tyggttagag gagagagaga tygggagaga tygggagagagagagagagagagagagagagagagagaga							2580
attaatgco tyagacacc gottacetty geogtyaga caciggect geaceagt zygygetota gacaccag etsytyceca tectocoga cotaccaca tecaticace zytygtetec gacacttic cagticactic cagtificactic participation of the control of							2640
gtggtctgtea ggacaccage etggtgecoa tectocogae cotaccaca ttecattece gtgtgtgtetet tgacattett eagtteagaa ttgtacactg gtgtacattg gattgtgt tattatttg cacttgttte tgtestgtgt gttgagatg gatcacagg gacaggaag ggacaggtgag gacaggaag gacaggtga coggacate aagacggaag gacaggtga coggacate aagacggaag gacaggagag gacaggagag cacagcatt gtgtactte aagacggaag cattacatt cocaatttg tgttttg tgttggagtg gatcacagc gatgagaca cattagagte coggacattg gatcacagce gataccag cacactag gettecatt aacacgacaga aaacatgca cagtgagaga gaggagatg gatcacagce gataccag cacttagga agacagaga gacaggagag gatgagaca acccgtat tactaaaaa aaaaacatga gagcaggag gatgagaca acccgtate tactaaaaaa acaaacatt agagcaggaa tyggtgagaa gaggagaaa tygtgtgaac accggtaata caggagaaga gagatggaa tgaggagaa tggggagaa agagagaacagga gagactgaa gagagagaga tgaggagaa tagaggagaa tagggagaa aaaacaga gagactacag gagagagaga gagagagaga tgaggagaga tagggagaga tagggagaa caggaatta gagagagaga cacaggaa taggagaga aaaaacaat tagaagaa aaaaacaaa aaaaacat caggaggag aggacagaa caggagaaca cacagaa cagagaaca cacagaaca tagaagaa cacagaaca tagaagaa cacagaaca tagaagaa cacagaaca tagaagaa cacagaaca tagaagaa gagagaaca aaaaacaaca aaaaacaaaa aaaaacaaa aaaaacaac							2700
gtggtctoct bgoactitot cagitcagag tigtacacty tgtacatty gtacattytgt actifitity to tgtcqtott gtugggagtg gatcocago cagigaaago 2 coggacty acgigaaago 2 coggacty acgigaago 2 coggacty 3 coggacty							2760
tattatttt aactytttt tytotytyt tytggatyg gatcocago caggaacag cocytycaat gatgoogg gacagaagag gacagytya coggaactt aactgocyta acceptive aacycotyta cattory							2820
cocytcaat gaatgocgg gacagagagg ggcaggttga coggactta aaagcogtga tectgagatat cgagaactb cattactto cocaatctby tootsgaatg gettocaag cattoactto cocaatctby tootsgaatg gettocaag cattoactto cocaatctby tootsgaatg gatagtgttt aaaacactgac oggytagagg gggcagagg gtggatcat gagytcagg gatcgagcc tratactocag cacttragga ggccgaggg ggtggatcat gagytcagg gatcgagcc accocytct tactaaaata caaaaaatt agccgggcgt ggtggaggag ggcagagag ggcagagag ggcagagag ggcagagag ggcagagag ggcagagag ggcagagagag							2880
cotyaatat ogaqaactg cattogtet Ettatgteeg cocacetagt gettecaett catageaaat geetceaag cattoaette cocaacttet togtogtagtg gitatggtett aaaacatgea oggtgagee gggegatgg getcacgeet gtaateccag cactttggga ggeggageg ggggatata gaggtegagg atcacgeet gtaateccag cactttggga ggeggaggaggaggaggaggaggagaaccegtete tactaaaaat acaacaaaaatt ageceggegt ggtggeggg accegtetatacaagaagaggagaattgggaggaggaaaaaaaaaa							2940
caticoaat goctocaago cattoactto cocaatottig togttgatog gitatgtgttt aaaaacaatac oggitagogo gagogoagig gotcacgoc tgataccoag acattigga 3 ggcagaggog gytggatcat gagogtagga attogagac atoctggota acaaggtgaa acocogtotto tactaaaaata cacaacaata agoogugogi gytggagggg gagottgaa gagogtac caggagaata tactaacaacaa aaaaacocaa aattagacaga tygtgtgaac cogggaaagog gagottgaa gocaggatga gyagottgaa gagogagat tygtgagaac atotgagata gagottgaa gocaggatga gagottgaa gocaggatga gyagottgaa gagogagatga gyagottgaa gagogagatga gyagottgaa gagogagatga gyagottgaa gagogagaa tagtagagac taggagaaco ttggactottg agoagagaa tgagttgaga taggagaaco ttggactottga gocaggatga gyagottga gyagogaga taggagaaco cattoctta aaaaataaat tattgacagac acaggtgct cacgoctgaa atocagacat tttggagggt cattogagat cacttgagat caggataga gagottga gagogagac taggacaacaa agogagatco cactoctta tggaggatt caggattga gagacaggac taggacaacaa agogagatco gtgagacaa aaatacaaca ttggagagaa aaatacaaca ttaggagagat agoactocag gyagacaca tagaaagac cactatttoag tyagacata tagaaaaca acataaaaaaaa aaataaaat cacagtogac taggacaacaa agogattgaa gyagagagaa gyagacaga gyagacaga gyagacaga gyagacaga gyagacaga gyagacaga gyagacaga gyagacaga gyagacaga aaatacaaca tacaaaaaaa aaataaaata							3000
asaacatgoa oggtyaagoc gggoqagtg gotoacgoci ghaatocoa oachttggga ggogagagog gstggatoat gaagdcaagag aatogagaca aactgota acaagtagaa aaccoptoto tactaaaaa acaaaaaat aaccaggogt ggtggoggg acctgtagtcagaa gaggaggaa ggaggaggaa gggaggagga accoptoto tactaaaaaa acaaacaat agctoagaa gggagtagaa gggagtagaa gggagtagaa gggagtagaa gggagtagaa gaggaggagaaaaaaaa							3060
ggocgaggog ggtgatcat gaggtcagga gatcgagaca atcctggcta acaaggtgaa acccegtctot bactaaaaata cacaaaaata agcoggagog ggtgggaggag acctgtgatc accagctactc gggaggctga ggcaggagaa tggtgtgaac coggaaggg acctgtgatcagaggagaggagaggaggagagga							3120
accocyteto tactaaaaa acaaaaatt accoggogt ggtggoggg acctgtagtc coagctaatc gggaggotg ggcgaggaa tygtgtgaac cogggaaag gagottycag ggaggaggaa tygtgtgaac cogggaaag gagottycag ggaggaggaggaggaggaggaggaggaggaggaggag							3180
ccagctactc gggaggetga ggcaggagaa tggttgaac ccgggaagg gaggttgagg tgaggcag ttgggcact gagtaggagg ttgggcact gagtaggagg ttgggcact ggggagaagg cagaactcg 4 ctcaaaaaa aaaaacacaa aaaaacacat gcttgggga tcagcagcc ttggctctg gggaagagg gaggatgg ggggggaggaggaggaggaggaggaggaggaggagga							3240
tgagcogaga ttdcgocact goagtocgoa giotiggoctg ggogacaga goagactocg a toctoaaaaaa aaaaaccatt gottgaggaga tagagacgoc ttggoctottg gocaggoatg gogaggotag ggdaggotg ggagaggotg gagagacgoc ttggoctottg gocaggoatg gogaggotg ggdaggotg ggagacagac categocatta aaaaatgaat ttggcagag acqagaggotg caggoagaac cactgotta aaaaatgaat ttggcagac acaggtgot caggocagac attggaggagc ggaggotgagacaaa aggaggatc cactgagtat caggagtgg agacagagc tgagcacaaa aggaggatc cactgagtat acactgagta atcagagtgga agacagagc gaggaggacag ggaggtgga ggaggacag tgagcacat ggagagaca gtgagcatt ggagagacag tgagcacat ggaggagaca gtgagcatg ggaggtgga ggaggtgga cactgagagat gagagtgga aaatacaact ataaaaaata ataaatac cacagtagga taggcotg tgagcaaga gtgaggtgag ggagtggag ggagtgga ggagttgga ggttctttotg aaatogcogt gttactgttg gagattgga gtgagttgaga ttgcgattgaga ggagacaga gtgagcaga ggagacag tgcgtcocagact cocgogagaga ggagatcaga ggagatgga attgcagatgga attgccocagact cocgogagagac ggagacaga attgcgococg tacagatag gggaattgaga attgcaca ggagacaga actggtcoctg tacagatag gggaatttt ttgttatgt gcattgtt attggttga gacagatga attgttgtcocagact cocgogagatga tattgttgag gacagacag ttattgttgaaac ctggttococtg tacagatag tattgttata attatatatat atacacaat atatataaa tcatttt ttttgaaac ctgattgaga tattgttga gacagactgt ttattggagag atgatgtca tttttaagct ttttaagaca ctgatttatag gacagactgt tacagagactgt ttattgagagac tttttaagaca ctgatttatag gagttgtat atttgagagact gtgagtgtattt tttgagaaga atgatgtcoc ctgatttatag tacagaagat atttgagacaga atgagactgt gtgagtgtactttttaagac tttttaagac ctgattgtag ggttgtaattt ttttagagaga atgatgtcoc ctgattgtag ggttgtactttttaagac ttttaaacac ctgatataga ggtttttgtag gcctgaatgt cttactgtga 4							3300
ccicaaaaaa aaaaaccaaa aaaaacctt gcttgggca tcagoagcc ttggccttg gccagoagtg gogagogtag gytgytgagg tggttgagag tcagotatt gagotgtcg gtggagagaaa tagattgag ttagacgaa cacagotgct acgcctgta atccagaca tttggaggtg cagtctaga tagatgagat cagtctgagat cagtcgagaa cacagotgct acgcctgta atccagacac tttggaggtg caccagotact tgggaggagaa agtcgctgagaacaa agcgagatc gtgaggaacaa ttggaggagaaaa tagaagaac cagagatca gtgagaacaa tagaagaaca tgcaatcag gtgagaacaa tagaagaaca tgcatcag gtgagaacaa aaatacaaat ataaaaaaaa aaataaata ctcagagcaa tgcgagaaaa agtgagaaaa gtgactgaga gtgagagaaca gtgttttag gtgagaacaa aatacaaca ataaaaaaaa aaataaata ctcagagcaa tgcgagaaaa gtgacagcag gtgagagaaca gtgacagcag gtgtttaga gtgttttaga gtgttttttag aaatcgccg gttactgtg gagaaacag ggaaaacag gttttttaga gagaacaa acggattggtca atgtccca gggacaaaaa cactgtgtcc cacagtgaa gaggaaacag ggaaacagtg gagagaaca acggttgtcc cacagtgaaaaa ggattggtagaacagtt cacagaagaa gggaaacaga ggaaacagtg aaacggtt aaacggtta aactgttac acttataata taataataa ataaacacaa ataataaaaa tcatattata ttttgaaac ctggatgtag gggagaaca ttgtcaagaa gggatgaaga gtgtgagagaa gtgaagagaa gtgaagagaa gtgaagagaa gggaagaaaa gggaagaaaa gggatggaaaaca actgttagaaac ctggagaaaaa gggatggaaaacagaa actggaagaaaa gggaaacagaaaacaacaa actggatgaaaaacaacaacaacaacaacaacaacaacaacaacaac							3360
gocaggaatg gogaggetga ggtgggagga tggtttgage teaggeattt gaggetgteg gitgagetatga ttattgecaet getttecae etgagetgtet aatceageae tattggaggetga taattgagetatget caaggatgete cacgetgta atceaggatet tattggagge tgaggaacaa aaggagaatce cactetaea aaaacaaaa agttaaaaaa cagttggta eggtggeaeg tgeetgtgat ceaggatgetg aggeaggagg atggetggag eggtggeaeg tgeetgtgat ceaggacate ttggaggetg aggeaggaag atggetgga eggtggeaeg tgeetgtgat aatceagacate tggaggetg aggeagaaca gtgagcaata ataaaaaaaa aaataaaate cacagtetgta atggagaaaaa agttetttetg aaatgeegg ttaatgtt egggagaaaa gtgatgaaga egggagaaaaa gttetttetg aaatgeegg tgaatgaaaa gggatggaaaaaa atgatgaaca eggaaaaaa atgatgaaga egggaaaaaa agtgatgaaaaa eggatgaaaaaa egggaaaaaaa egggaaaaaaa eagtgagaaaaaa egggaaaaaaa egggaaaaaaaa egggaaaaaaaa							3420
tgagctatga ttatgocard gotttocago otgggoaaca tagtaagaco coatoctotta aaaaatgaat ttggccagaga caagtgoct cacgoctgta atoccagoca tttgggaggo daagaatgatgat tagtacgaga caagtgoct cagoctgtata atoccagoca tttggagggo dagagctggat cacttagatt caggagttgg agaccaggot gagcagcaa aggagatco caccagctact tgggaggotg aggoaggagg atogoctgag cocaggaggt gaaggttgca gtgagcact atogagcac tgcactocag octgggoaac agatgaagac octatttoag datattottt aaaaaaaat aaataaatc tccagtotgat ogggagagaa gtgacagoct gcctgaagattttttt aaatgocotg gttactgtg cactgatgot oggagagaca gtgacagoct cocgocgaac actgatgoca gggaacaac gttotttotg aaatcgocg gttactgtg cactgatgot oggagagaca gtgacagoct cocgocgaac cocgocgaaa aggattogaa aggttacaac actgtgtocc occcagtoca gggaacacg ggaacacgt atagoctoc gggacaaaac actgottoc coccagtoca gggaacacgt gaaagagtt togagaacgt tagagaacgt tagagaacgt tagagaacgt tagagaacgt tagagaacgt tagagaacgt tagagaacgt tagagaacgt tagagaacgt tagagaacc tgggatgaacc tgagaacgt tagagaacgt tagagaacgt tagagaacgt tagagaacgt tagagaacgt tagagaacgt tagagaacgt tagagaacgt tagagatgt tttatgagagggtstact ttttaaacca ctgattagaa ggttttgta gactgagatgt tttatgagaggt tttattgtagaacctttttaaacca ctgattagaa ggttttgta gactgagatgt tttatgagaggt tttattgtagaacctttttaaacca ctgattagaa ggttttgtag gocggaatgt tttatgatga							3480
aaaatgaat tiggcoagac acaggtgct cacgoctgta atoccagcac titgggaggc [1930] tigagtgggt cactingatt caggagting agacaaggco taggcaacaa agogaagcacc 3 cactottaca aaaacaaaa agttaaaaat cagtiggta cggtggcacg tgcottgtat 3 ccagctact tigggaggetg agocaggag taggaggtig agggtigca 3 gtgagcatg atogagcac tgcaatcacg cotggoaac agtgagacg tgcottgtag 3 ccagctact atogagacea tgcaatcacg cotggoaac agatgaagac cotaittoag 3 aaatacaaca ataaaaaaat aaataaatc tocagtotga atogtgagaagac gtgacagct 4 ccgtcagact occggtgaa gatgacaaca cagatgtgc gggagaaaaca gtgacagacc 4 ccgtcagact occggtgaa gatgacaacag gattagcaa attgtccca gggagaaaaac actggtcoccg cocagatga gggaaccgt ataagcottt ctggittogg agacagaca 1 tigcgtcoctg tacagatagt gggaatttt tigttatgtt gcattigta tattggttga 4 tittgcaaacc ctggttagt tattgttac gtgactatt tiggitcaaa tottattatt 4 tittgcaaacc ctggttagtg tattgttac tacaacat ataataaa totattatt 4 tittgcaaacc ctgatagtgc tittatgt acaaagatt atttgcaa actggactg tigcaacgct titttaagcac ctgtatagt tacaaagat tattgcaaa actggactg tigcaacgct titttaagcac ctgtataga ggtttitgt gcctgaatgt cttactgtag							3540
tgagottggat cacttgagit caggagitgg agaccaggot tgagotacaa agogagatco calctotaca aaaccaaaa agttaaaaat cagtgggta cggtgggaag tgagotgtggat cacaggagatca tggaggagg atcgctgggt gaggattgca gtgagocatg detgagocat tgcactocag atcgctcag ccaggagagag gaggagagag atcgctgggaa gagtgacag ctcatttoag aaatacaact ataaaaaaat aaataaatc tcagtctgg atcgtttgac gggaatcag gttttttgtg aatcgcotg gttactgttg cactgatgtc cggagagaca gtgacagct (cctgatgtcc coccagtgca gagtgacaa gggatgaca gtgacagcat acctgtgtcc coccagtgca gagtgacaa gggatgaca tgctgctca gggaacacg gaaacgtg ataagcttt ctggtttogg agcactaaa tgcgctcctg tacagatagt ggggatttt tytatagttt gcactttgta tattggttga aactgtatc acttatatat ataatatat atacacacat ataataaaa tctatttatt							3600
calcitiaca asaaccasaa agittaasaat cagotggita oggiggocag tgocitigat cocagotact toggaggotg aggoeggag atogocityag cocagoggag tgagogityaga gitgagotga gitgagotag tgagogityaga gitgagotag tgagotgag atogocityagaca agatyaagac octatitoag asaatacaaca tahaasaasat asaataasac tocagotatya atogottyag gitetiticag gitetiti							3660
cccactact tyggaagetg aggeaggag atogoctgag cccagagagt ggaagettgca gtgagacactg atogaagecac tycactocag cotggaacac agatyaagac cctatttcag 33 aaatacaact ataaaaaat aaataaatce tocagtctgg atogtttgac gggactcag gtcttttctg aaatogoctg ttactgttgc cactgatgtc oggaagacac gygaacacca ccgttatgtccc cccagtgcag aggaaccgt atogoctgaa atogoctgaa gggaacacgt gcgcaccacacacacacacacacacacacacacacacac							3720
gtyagocatg atogagocac tgcactocag cotggocac agatgaagac cotatitoag aaatacaacat atacaaaaat aaataaatoc tocagitotg atogitiotga gggactocag gtictititg aaatogocgi gitactigitg cactgafgic oggagagaca gtyacagoct cocgocgagaa gatgicacaa gggatiogac attgacocca gggacaaaac cactgigicoc occaagigoa gggaacogig ataagoctit otggitiogg agacogiaaa atgociocotg bacaagatgi ggggatitit gitatgiti gcactifigit attgitiga actgitisti attgatgaa cotgataat ataatataata catatitati titigaaaac otggitigotgi attigitiga gacagotgi gigcaacgi gigcaacgi titigigagagg titatigida gigcaacgi attgaggagg titatigida gigcaacgi titigagaga attgagigoc tititiggaga atgiticoc ogtifiatagi atgagigot totgagaga titigagigoc tititigagaga atgiticitatiga gocigaalgi citatigida gigtigicact tititaacaca otgatataga ggtitigat gocigaalgi citatigida 4							3780
aaatacaact ataaaaaaat aaataaatoc tocagictgg atogittgac gggacttcag gttetttotg aaatogcogt gttactgttg cactgatgto oggagagaca gtgacaagoc 4 cocgtcagact cocogatgac gagaaccgtg ataagocttt ctggittogc accoagtgac gggaaccgtg ataagocttt ctggittogg agcacgtaaa 1 tgcgitcoctg tacagatagt ggggatttt tyttatgttt gcacttigt atattggttga aactgttatc acttatatat atatatata atacacacat atatataaaa totatttatt tttgcacac ctggittogg tattigttor agtgactato toggggoct gtgitagggg 2 ttattgcotc tgaaatgcc ctlctttatg tacaaagatt atttgcacga actggactgt 4 ggggtfcacittttggaga attgstocc ogttytatgt atgggtggy 4 ggggtfcacittttggaga atgatyccc ogttytatgt atgggtggt cttattgtya 4 ggggtfcacittttggaga atggtocc ogttytatgt atgggtggg 4 cttattgtya							3840
gttcttttg aaatcgcegt gttactgttg cactgatgte oggagagaag gtgacagcet cegtegagat cegtegagaa gatgtcacaa gggattggca attgtecea gggacaaaac 4 cactgtgtece coccagtgca gggaacgtg ataagecttt ctggtttogg ageacgtaaa ttgcgtccotg tacagatagt ggggattttt gttatgttt gacattgtat acttatatat atatatatat atacacacat atatataaa tctatttatt							3900
cogteagaet cocgogigaa gatycacaa gggattggca attgtoccca gggacaaaaca (actgtytccc coccagtgca gggaacogtg ataagocttt tegylttegg agcacgtaaa 4 tgogtocotg tacagatagt ggggattttt tgttatgtt gcactttgta tattggttga (aactgttatc acttatatat atatatatat ataacacaca atatataaaa tctatttatt							3960
actgtptccc coccagtgca gggaaccgtg ataagcettt ctggittcgg agcacgtaaa tgcgttctct tacagatagt ggggatttt tytatatttt cactttttpt atattggttga aactgttatc acttatatat atatatatat atacacacat atatataaaa totatttatt ttttgcacacac ctggttgctg tatttgtca gtgcactattc tcggggcctt gtgtaggggg tttattgctc tgaatgcct cttctttatg tacaaagatt atttgcacga actggactgt gtgcacacci ttttggaaga atgatgccc cyttgtatgt atgagtgct tctgggagat gggtgtcact ttttaaacca ctgtatagaa ggttttgta gcctgaatgt cttactgtga 45							4020
Eggtcoctg tacagatagt ggggatttt tyttatgtt gcactttgta tattggttga 4 aactgttatc acttatatat atatatatat 4 tttgcaacca tttgtatatat tattatatata tottatttatt 4 tttgcaacca ctggttgctg tatttgttca gtgactattc tcggggccct gtgtaggggg 4 ttattgcctc tgaaatgcct cttcttatg tacaaagatt attgcacga actggactgt gtgcaacgct ttttgaagag atgatgtcc cgttgtatgt atgagtgcc tctgggagat 4 gggtgtcact ttttaaacca ctgtatagaa ggttttgta gcctgaatgt cttactgtga 4 gggtgtcact ttttaaacca ctgtatagaa ggttttgta gcctgaatgt cttactgtga							4080
aactgttatc acttatatat atatatatat atacacacat atatataaa totatttatt ttttgtcaacco ctggttgotg tatttgttca gtgactatte toggggccct gtgtagggg 4 ttattgcctc tgaaatgcct cttctttatg tacaaagat atttgcacga actggactgt gtgcaacgct ttttggagga tagtgtccc cyttgtatgt atgagtgctc tttggaggat tgggtgtcact ttttaaacca ctgtatagaa ggttttgta gcctgaatgt cttactgtga 45							4140
tttgcaaacc ctggttgctg tatttgttca gtgactatte tcggggccct gtgtaggggg 43 ttattgcctc tgaaatgcct cttctttatg tacaaagatt atttgcacga actggactgt gtgcaacgct tttttggagga atgatgtcc cgttgtatgt atgagtggct tctgggagat gggtgtcact ttttaaacca ctgtatagaa ggtttttgta gcctgaatgt cttactgtga 44							4200
ttättgeete tgaaatgeet etketttätg taeaagatt attigeaega aetggaetgi gigeaaeget tittgggaga atgatgteee egitgtaaeget tettaggagagat 44 gggtgteaet tittaaaeea etgitatagaa ggittitgta geetgaatgi ettaetgiga 4							4260
gtgcaacget tittigggaga atgatgteec egitigtatgt atgagtgget teitigggagat 44 gggtgteact tittiaaacca eigitatagaa ggittitigta geetgaatgt eitaetgiga 45							4320
gggtgtcact ttttaaacca ctgtatagaa ggtttttgta gcctgaatgt cttactgtga 45							4380
							4440 4500
Conditional Licertagnic decodedada 45				ggtttttgta	geetgaatgt	cccactgtga	
	Luaaltaaat	LLCLLABATG	aaccaaaaaa				4530

```
<211> 2343
<212> DNA
<213> Homo sapiens
<220>
<221> misc_feature
<222> (1)...(2343)
<223> n = a,t,c or g
```

<400> 389 ttttttttt ttatgtggat aatatttatt tgtatcttat ctatagaaca aatatttaca 60 gatacaaacg gaatcacagc aaagttgcta taaaaccatc cagacctctc gatggccact 120 totgaaaaca tocaoggtga agggcagggc caggcctggc tgtggagtgg gccagctgag 180 240 tacctgggcg tcagccaagg gaaatggttg gggattatgg cttcagcact ctgccggage acatteetga gegetgacaa egtggageee teacegeeee cacetaceee aaceteaatg 300 gggaaggaaa ggggcctgag ctgggcaggg ctgcccqqqc tcactatqtg cctqctccaq 360 gagtccctgg cccctgtgct ggcaggagca tccctgagct ggaccgggag gcctctctgg 420 cetggggetg etceetgeee ggeaggetge tgtttggeag etggaggtgg caagagetge 480 tggtgctgcc agggcgtgtt ggccaggaat gagctcccag ggcagccctg aggaaagggt 540 cttaggaage geeteecage teactactag gagetgggga etgteagtge tgagtgggge 600 tggggtacag gagcacctgc ctctcctttc tttggcttag aagtggggaa ggaagggcca 660 ggaaaaggga ccaaagccgc cccagccttg gcccctaggc cgcctgggga ctgtgtgtgt 720 gctgaggggg cagtgggagg tgggcagctc tggagttccc tgcaccctgg gatccttggg 780 ctgctctcac tcccggggtc ccagcagggc aaggcctctg cttgggacca gtgctqctct 840 bottogobgo ttactcoagg aggtgaaggt gacagggogg caaggagagg taaccacage 900 atggctgggg acaggcgcta cactgggccc cggacccagc acagggatca cagtgtcggt 960 ctegegeaca cacetetgge cacatgtgca caccacatac atecacacge acetecetec 1020 tgtctggcgg gaggctcatt ctctctcgca gccactcgcc ctctctqcct ctcacatatq 1080 eggtcacaga gtqaatccqa gcatcttatt qctqcaqqqq qcaqqqqcqt cqqcatcaqq qaaagttaat ccacqaaqag cgagaacagc accattacca cgatqcccqc acagagcaga 1200 ageagetget geagggageg ceaegggtee tettetteea agaggteagg gageaegtte 1260 accaaqqcqa tqtaqaqaaa qccqccaqaq qtqaaqqqca qqacccaqqc tqccqtctcc 1320 totactccct tgggggactg ggtacagatg gcgaagccag cgcccagtag gcccccaagc 1380 gotgttgaga gttgcagott ggotgcgctc categgtcaa agceggcccg gagcaggatg 1440 gcaaagtege ccacctcatg ggggatetea tgcaggagga tggccatggt tgtcaggage cogatettet tgetcacaag gaagetggca gecacageca gecogtgggt gaagttateg 1560 atggtgttgg ccagcaggtt gaggtagccg ctgactttqa tgctccqqac cacqqcaccq 1620 aggooggget ctgcaqcogg ctgggccaqa cagtggcete cattgagege ggcggcaqca 1680 gcagtqgggt ctttqttqqq gqcctqqctq qtcccctcct cettqctqtc caqqaacatc ttctccaacg ccaqqaaqqt caqqatqcca qcaatqaccc acaqcccaq ctqttqctqc 1800 tgctgcaggc tetgcccctc accaccaggg ctgcgctgc acqtgtaggc ccaggettcg 1860 ggcagcagat gcagaaacac attgcccaag agtcccccca gggcgaagct gagcagctgc 1920 thraggeger aggreecage thrtgagege ageatggter ceatetetag gggaatgara 1980 agcaacggga agaccccact gagccccacc atgagggaac ccaggaggga gcagatccag 2040 gtgtccagcc gctctccgct cagcagagcc ccccaggact cgctttcctt gttgtccagg 2100 cgacaggoog togcagtooc coggetoogg agggoogget gggaacccc agcoettooc 2160 aagageteea gggcaaggge agtgaggaag aggageettg ggcccgccat gccacagcca 2220 gggcagggac atccaggcat gccacgtacg tgcggcggcg gcggcggcga tccgggcggc 2280 cccagcccgg gaatteggtn neggtegteg tgegtaegge ttcaatnate aaannengge 2340 acq 2343

<210> 390 <211> 1325 <212> DNA <213> Homo sapiens

<400> 390 gggaaagtga gtgctggcca ggctggggcg gacagaacac ttcqacggqc tccqqagccc 60 agatteagee aggaaceeac aggeaacteg geetaceecc agetgaggee etttttggae 120 ccgcagggga gagatettaa acccageget ttggtcccac ccaccegete ccacactggg 180 aggagaccat ggctccacac acagcccctg ccaggcccac aggggcgggc atgggggccc 240 acctgectee tgcatgtgtg gacagggtee tggagagtga ggagggeege agggagtace 300 tggcgtttcc caccagcaag agctcgggcc agaaggggcg gaaggagctg ctgaagggca 360 acggeeggeg categactae atgetgeatg cagaggaggg getgtgeeca gaetggaagg 420 ccgaggtgga agaattcagt tttatcaccc agctgtccgg cctgacggac cacctgccaq 480 tagecatgeg actgatggtg tetteggggg aggaggagge atagaccqtc cqqaqcaqtq 540 gggcctctgc cagcccttgc agctgcagcc catccctggg ccatgtcccc tccatcgagt 600 gcccqgtgct tgggggagga gggcagggac agggagggag ccacagtcag tgcccgggaa 660 cetqqaaget gegetgetet gegeetetgg geeteactgt ggacagagga gteaggeeeg 720 ccccaggagc ctccagctgc ctaaccagtg ccattettte acaacacgat tttctacaaa 780 totacageac aaccgagttt gtaacccgtg ggttagtatg aggaccgggt tegtgtactc 840 tetgtatete etettaaget tegteeaggg ttetttattt ttgtetgetg ccaatqteqt 900 ctegeatgcc tgeacceteg catgeaeget geeegeatge caegtgecae getqtageca 960 cagacccett getegggeet cacccaagge caaactecaa acacaateaq aaccaqccaa 1020 agaagcactt cctgggcacg gccaccaget ctcccgcctc caqtqtqqqc cqqctcctqc 1080 agggtccgag ggctgcatct ctaccagcca gcccagggct cttcccaggg tctcgcattc 1140 aagggcaatt acattttaaa aagaaaaaca gaaaaaggtt aatcacaaaa ccaacctta 1200 cttcacaggg tctgtaagtc actcatagaa ctttgctctt cccgagacag ggtcccttcc 1260 ccagetcagg cacaacagag tetggcagge tetggcacee tgggceteet eegggageet 1320 cccat 1325

<210> 391 <211> 1458 <212> DNA

<213> Homo sapiens

<400> 391

ttttttttt ttcaggctta aataacaaaa tatatttcag atatgcacag ttttaactga 60 ggactacaca agcettecte gggetgeagg ecegeegeee teecagtggg atteacagee 120 cctgcggagt ttgtcctcac gcacaccaca cacgatcggg tataaaacac attctataaa 180 cacgttctga tgcaaactgt gtgtccataa atatatatt atgcaagttc ctcccaccca 240 ctgcagggcc gtacagctct gqqqacaqqa qqtcacaqcc qactttaaac cacaggttaa 300 gtagaaggtt gcaggtcaaa tagaagttcc cgtgtgattg catcacccaa cggcactgtt 360 ctgtcatcag gaaatgctga gtgcccgccg tggccgggtg ggcgcgggcg gtggtcagac 420 getgetetgg agetggetat etgtggeact gteagggget gaggaetgge tgggeagaea 480 agtttccagg ccatctgaag actccgacag gggcttgtat aagaagcagg ctatggcaaa 540 gaagaggacg cccagcacct tgtacaggag ccccatgatg agtatgtagc ggctcatggc 600 cgaattctgg tacaccaage aggageeetg etggeeacae tggteetgee acageagaea 660 ggccttgtcg atcacccagc cgaaggcgat gggccccggg atgcccccta gtattctaac 720 tacaatccac tggattccca gggcaaagga tctctgaggg tcacggacac atcgtagagt 780 tgccgttagt gcaggaatgc tgctgaggaa tgtaaagaaa attacaacga atatgaaaac 840 cagaaggagg ggctttctct gacaagttga agtqcatttc cctgcaqtqq catqqccaaa 900 accagaggaa agattetgag ggatacaget acagtetegg tacacetggg aageecaaca 960 atageteega ttacaagggg aaggeaeggg ggeeeettee cagggteeag gggaggaeag 1020 gggcggtagg cagcggctcc actcaccttc tggccgtcca cattcgtctc cgtggctgca 1080 gggcaccetg cgtggcacag tgagaagtac atgaggccgt ccgagccgca cacagggctg 1140 tagtgttctg gctggcagct gcaggcagcg ttgcagggag ccgttaggtt caggtggcct 1200 tegggeagga ggetecegee gtagetgget gtgaegeeeg ccatgggeae aetggggeag 1260

 tgcagtgaga
 agacgagat
 ccagraagg
 ctgacaacgg
 ctgacaacagg
 gcagaacatg
 gagaacattg
 1320

 atgaccgggg
 agcocgagag
 ctgacaacag
 acgagttg
 tcacaacaga
 acgeccag
 gaagttcg
 1340

 coacaacocg
 ctggacacaa
 cagstaccaa
 aacaaggtg
 cgattctga
 ggacatctag
 1440

 cgaattcaa
 cacaacga
 1458

<210> 392 <211> 1667 <212> DNA <213> Homo sapiens

<400× 392

ttttttttt ttctatgtac aaaaacattt taattgaaat acctgtataa aaaaatatga 60 tetecagaca teteactitt gaactgaaag aacceccate tgcgatgeet geacacaceg 120 cattcacaca aacacaggta ctgaataaat taaacgctca ggctctggcc ccaccccagc 180 tttcagagcc cacaagcaga ctgtacaaag tcaataattt aaaacccaaa ccctgggcac 240 agtgcctgga agtgtcaggg tcacccactc cccttaagtt agccactata catgttcatc 300 ttctgacagg cggggccagg acagacgcca ggcacaggaa tcagggcctg gggtccctgg 360 accacagoca coccotocco tgcctcccca ctgtcccctg gggcttggga gaggcagact 420 getcagagga aataacetca acaaataaat taaacaataa atageeegg tgggeegagg 480 gcacctccag ggggtcacac cataaataac agagttggcg gcgggtacgg ctcgcgtggg 540 cgggcqqgcg cggaggccag gacttgcatt gtgtgtgcag gacgtgccca gacgcacacc 600 gcaggactga gggcgggagg tgggcttggg accctgcgcc ggcggaaaga gctccgggtg 660 ggcaggcaga tgggaaggcc gcctccggac acagcagcac agagggcgt ctggggttca 720 agtatecace cagggcagge gggacetega coggagegte titiggacaga cagagettga 780 gaaaaccaag tocogoggga ccagogttca aaaggcactc aaagcgaagg tcaccaqqqq 840 tcagaggtca ctgcttccgc aggaggagac ggcccacgca ggaaaaagtc agggtctggg 900 ggcgtcccag gtctggccaa ggcaggtggt cccctagctc ccagtcaggt gcagctcctc 960 acaagetete getgetggae gtggtgetgg ceaegteate agggtegagg gtgeacagee 1020 gcaggtcaca gctctccggg gcgcccccgt cagcccccag catccaqqqa tqqqccqcaa 1080 totgatccag cgacggccgc totgagggcc gcaqqqacag qcaccaccqq atcaqctqct 1140 ggcactetgg agagaccete eteeggaaga geaggeggee teggaggate teetegteet 1200 gctcgaaggg gatgtcccca cacaccatat cgtagagaag cacgcccagc gaccacacgg 1260 tqqccqaqcg cccgtggtaq cggtggtagc ggatccactc cggggggctg tacactcggg 1320 tgccgtcgaa gtcggtgtag accgtgtcct tgagcagcgc acccgaaccg aagtcgatga 1380 gettgagete teeggagege aggteeacaa geagatttte gteettaatg tegeggtgea 1440 cgaccccgca gctgtggcag tggcgcacgg cggccagcac ctgcgcgaag aaaqcggcqc 1500 gccagoggct cgtccagggc gccgcgctcc gtgataaagt cgaagatggt cctagcgcc 1560 getegggeeg etecageace ageaggaage egtegggeeg etegaaceag tecageagge 1620 ggatgacgcc gcgcgcgccg cccggcgcgc ccaccttgcg cagcagc 1667

<210> 393 <211> 1938 <212> DNA <213> Homo sapiens <220> <221> misc_feature <222> (1) ... (1938) <223> n = a,t,c or q

```
<400> 393
gtggaaagaa cagtcagaaa goototootg tggatgatga acagctgtca gtotgtottt
                                                                     60
ctggattcct agatgaggtt atgaagaagt atggcagttt ggttccactc agtgaaaaag
                                                                     120
aagteettgg aagattaaaa gatgteetta atgaagaett ttetaataga aaaceattta
                                                                     180
tcaataggga aataacaaac tatcgggcca gacatcaaaa atgtaacttc cgtatcttct
                                                                     240
ataataaaca catgctggat atggacgacc tggcgactet ggatggtcag aactggctga
                                                                     300
atgaccaggt cattaatatg tatggtgagc tgataatgga tgcagtccca gacaaaqttc
                                                                     360
acttottcaa cagctttttt catagacagc tggtaaccaa aggatataat ggagtaaaaa
                                                                     420
gatggactaa aaaggtggat ttgtttaaaa agagtettet gttgatteet atteacetgg
                                                                     480
aagtocactg gtototoatt actgtgacac tototaateg aattatttea tittatgatt
                                                                     540
cccaaggcat toattttaag ttttgtgtag agaatataag aaagtatttg ctgactgaag
                                                                     600
ccagagaaaa aaatagacct gaatcttcag ggttggcaga ctgctgttac gaagtgtatt
                                                                     660
ccacaacaga aaaacgacag tgactgtgga gtctttgtgc tccagtactg caagtgcctc
                                                                    720
gcccttagag cagcctttcc agttttcaca agaagacatg ccccgagtgc ggaagaggat
                                                                    780
ttacaaggag ctatgtgagt gccggctcat ggactgaaac tcagcaggga ctctgggaag
                                                                    840
totgaccaag ttggagcaga tggtttgtta cttgaatctc caaacactta gttgaatttt
                                                                     900
tacagatatt tcagatcagt gggtgttggg qccactattg ttacctccaa attttatttt
                                                                    960
ttgcccttaa ttccatttct cccagctacc atgtactatt gtttaatgtt cagtttggtt
                                                                    1020
tcatttttaa ttttatggtt ctgtgcgtcc cccatattta atatttatta ttcaaacgca
                                                                    1080
tgcatataga cagagcatgc agtgaagagt attaaaaaaa aaagcttagt agatttggtg
                                                                    1140
cagottttga aacttaggtt agacgtgaaa ctgaaataca ggtttcaaat ttacttcccc
                                                                    1200
agaacctaaa aatgcaagat gtttttgata ccaaccataa cctcctgaga atagtaagtg
                                                                    1260
ttcccccggg gcattaaggg taagcctggg ggtggttttt gaccaaatcc cagtccctqt
                                                                    1320
tttaccttta cccagoggca actttcaccc aacttcccct ctcccaagtg agtcttagag
                                                                    1380
agtgcagtcc cattcctttt tgaagggtga gatggaagtg gtcgtaaact gactggtgtc
                                                                    1440
ttctgtttct gggaggcaca cttgtaaggc acagtggctg ctttgggagg agtaaggtgt
                                                                    1500
gagaaaaagc aaccttggag gccagtaaca atgacagatt tcaatcgtgg ttttaggaat
                                                                    1560
tataatacgt ggcatacatc tcataaaggc ttttgctggg atattgaatt ccctgaattt
                                                                    1620
ttctgttttc gacctgttaa aaaaatctta acatccatca aactagtggt caaacaaatg
                                                                    1680
agaatgcagc tgttctcaga gtaattttta agttgtcatt tccctgtgtt gcctcccaat
                                                                    1740
tggaagaagt taaggtttac caaatgcatt tctatttcaa gggtatctga aacgtaaaca
                                                                    1800
ttcaaaactg aaggetgact gacttnagat gttttgcagg tggctggaga gaacagggaa
                                                                    1860
ggtaatagag acacacttag teccatggga agegeageac egttgtaggt tettteteet
                                                                    1920
gtcccattag cgacctca
                                                                    1938
```

```
<211> 1283
<212> DNA
<213> Homo sapiens
<220>
<221> misc_feature
<222> (1)...(1283)
<223> n = a,t,c or g
```

<210> 394

```
<400> 394
gatttcagtt gcctgaaagc tgtaagtctg cttttttaaa agagaaattg gagttaagca
                                                             60
gacttttcat tttttgatca tgaccctgga aagagaaata tatttgacat caaaactcag
                                                             120
cacatateet tggtetatat atacacatga aagttteata aaacaataca etgatatttt
                                                             180
ccatgotgta ttctatttca ttttttaaaa tgctggttgt atcccattaa actggtttca
                                                             240
300
ageteagega gtateageaa etgagaette ateettgtet cacaaggaet aaaaagagaa
                                                             360
taatgttctc attatgtggt tcaatgccac acccatgtat ctgagatata catgtcacaa
                                                             420
totgggagaa gootgtooto aatttacttt aaatacccaa ttotgootag aacatgaatt
                                                             480
```

agacacatag	taagctcttg	agtgaagtgc	agatgataat	gacacgatca	cataccactt	540
aaaaatatct	taacaccttt	acttagatct	catctcatac	ttgtagcatt	tcttcaaatt	600
tactttgaaa	aaagagcttc	actgtgtgtg	gttgtcatac	acattettet	acccaaccat	660
ggacctcttt	tttcctctca	ggcgcacttc	atctaatttt	tttagcactg	gcctggcctt	720
tttggaggag	gtggagtagc	tcttcagaaa	ggcttcaaac	acagtttcag	tgttgggatg	780
ggtactgagg	aaggccttct	ccaggacata	gaggtctact	cccttatcct	ctggaagtgc	840
tgaaatgaaa	ctcagcccaa	agtctatgag	cacaatgttc	agctgttcca	ggggggttt	900
caggagcatg	ttggaggtgg	tgagatcacc	atgaatgagg	tcttcatcgt	gcattcgagc	960
caaaacctgc	ccaattgtct	tggctaagtt	ggagagaccc	tggggagttt	ttttcagtct	1020
ccatagtgga	ctgaatataa	tctcgaacag	tcactgagcc-	ttcaatttct	tccatatata	1080
agcagttgga	agcatagtcc	acaaaaaaga	caactggggc	agatattcca	gegeggegae	1140
agcggaggag	cgcccgggcc	tcctgcaccg	teegeegtet	gccaagccgc	gcctccagcg	1200
ccgggtgccg	gtagccttgg	gaagcggtgc	ttnnttncnn	ggccttgcta	gccccctggc	1260
tcattnnccc	eggeeeggte	tcc				1283

<210> 395

<211> 2149 <212> DNA

<213> Homo sapiens

			gatgcagggg			60
ccttattgac	agaaccatca	agatgagaaa	agaaacagag	gctaggaaag	tggtcttagc	120
ctggggactc	ctaaatgtat	ctatggctgg	aatgatatat	actgaaatga	ctggaaaatt	180
			gcccctctgg			240
atctctcttc	agccttaatg	ccttatttga	tttttggaga	tatttcaaat	atactgtggc	300
accaacaagt	ctggttgtta	gtcctggaca	gcaaacactt	ttagggttga	aaacagctgt	360
tgtacagact	acgcctccac	atgatetgge	agcaacccaa	atccctcccg	ctccaccttc	420
			ttatagccct			480
			ttacagccct			540
			gacctactcg			600
gttggcgagc	tttagcccct	ctcctccttc	tccgtaccct	accactgttg	gaccagtgga	660
gagcagtgga	ttgagatete	gctaccgttc	ttcacctacc	gtctacaact	cacctactga	720
caaagaagac	tacatgaccg	acctacgaac	tttggatact	tttctcagaa	gtgaagagga	780
gaaacagcat	agggttaagc	tggggagccc	agattctacc	tctccttcca	gcagtcctac	840
tttctggaac	tatagtcgtt	ctatggggga	ttatgcacaa	actttaaaga	agtttcagta	900
tcagcttgcc	tgtaggtctc	aggccccatg	tgctaacaaa	gatgaagccg	atctcagctc	960
taaacaagcc	gcagaagagg	tctgggcaag	agtggctatg	aatagacaac	ttcttgatca	1020
tatggattca	tggacagcta	aatttagaaa	ttggatcaat	gagacaatat	tagtgccact	1080
			gatgagacga			1140
gataggagag	gctagtatta	ctagcttgaa	acaagetgee	ctggttaaag	cgcctctcat	1200
tccgactttg	aacacaatcg	ttcagtatct	agaccttact	ccaaatcagg	aatacttgtt	1260
tgaaaggatc	aaagaactat	ctcagggagg	ttgtatgagc	tcatttcgat	ggaacagagg	1320
tggcgacttc	aaaggacgaa	agtgggatac	agacctgccc	accgattctg	ctatcatcat	1380
			attacctcca			1440
aaaaactttt	acttctcagc	actttgttca	gacaccaaat	aaaccagatg	ttacaaatga	1500
			caaccctccc			1560
			gaaataatat			1620
			gaatgcttgg			1680
			agtagcaagt			1740
			actaaacatc			1800
			gactctttag			1860
			cgtatcttct			1920
			gactacaaaa			1980
			tgaaatagat			2040
taacccccaa	atgagaatca	tctacctgat	tettgtacca	aaaaaaatt	tttttcagtc	2100

tttttttttt ttaaagaggg tttttgccaa cccaaactgg agggcaggg

2149

1895

<210> 396 <211> 1895 <212> DNA <213> Homo sapiens

<400> 396 actgtagacc attagtccag tgcggtggaa ttcatcaacc gaaacaacag tgtggtacag 60 gtoctgottg ctgctggggc tgatccaaac cttggagatg atttcagcag tgtttacaag 120 actgccaagg aacagggaat coattetttg gaagtcctga tcacccgaga ggatgacttc 180 aacaacaggc tgaacaaccg cgccagtttc aagggctgca cggccttgca ctatgctgtt 240 cttgctgatg actaccgcac tgtcaaggag ctgcttgatg gaggagccaa cccctgcag 300 aggaatgaaa tgggacacac accettggat tatgcccgag aaggggaagt gatgaagett 360 ctgaggactt ctgaagccaa gtaccaagag aagcagcgga agcgtgaggc tgaggagcgg 420 egeogettee eeetggagea gegactaaag gageacatea ttggecagga gagegecate 480 gecacagtgg gtgctgcgat ccggaggaag gagaatggct ggtacgatga agaacaccct 540 ctggtcttcc tcttcttggg atcatctgga ataggaaaaa cagagctggc caagcagaca 600 gecaaatata tgcacaaaga tgctaaaaag ggetteatea qqetqqacat qtecqaqtte 660 caggagcgac acgaggtggc caagtttatt gggtctccac caggctacgt tggccatgag 720 gagggtggcc agctgaccaa gaagttgaag cagtgcccca atgctgtggt gctctttgat 780 gaagtagaca aggcccatcc agatgtgctc accatcatgc tgcagctgtt tgatgagggc 840 cggctgacag atggaaaagg gaagaccatt gattgcaagg acgccatctt catcatgacc 900 tecaatgtgg ccagegacga gategeacag cacgegetge agetgaggea ggaagetttg 960 gagatgagcc gtaaccgtat tgccgaaaac ctgggggatg tccagataag tgacaagatc 1020 accatotoaa agaacttoaa ggagaatgtg attogoocta tootgaaago toacttoogg 1080 agggatgagt ttctgggacg gatcaatgag atcgtctact tcctcccctt ctgccactcg gageteatee aactegteaa caaggaacta aacttetggg ccaagagage caagcaaagg cacaacatca cgctgctctg ggaccgcgag gtggcagatg tgctggtcga cggctacaat gtgcactatg gcgcccgctc catcaaacat gaggtagaac gccgtgtggg gaaccagctg geageageet atgageagga cetgetgeee agggggetgt actttgegea teaeggtgga ggactcagac aagcagctac tcaaaagccc agaactgccc tcaccccagg ctgagaagcg cotcoccaag ctgcqtctqq agatcatcga caaggacagc aagactcgca gactggacat cogggcacca ctgcaccctg agaaggtgtg caacaccatc tagcagccac ctgcctgctc agggggggcc gtttaaaaga accettgggg ggcccaaatt taaccegggc gggcaaggaa 1680 aaatttttt ccttatgggg ggccgaataa aaaccaacct gggaattttg ggaaagaacc 1740 cttattttgg gggggggaca aattgggcca acctccctac aaaaattaaa ggctttaggg 1800 aaaaaaaaaa tttttaaggg gaaaaggggg aaaaacaacc ggcataccct ggcggttgga 1860

```
<211> 2416
<212> DNA
<213> Homo sapiens
<220>
<221> misc_feature
```

<210> 397

aagttttgtt tacggagtat gatttagaaa aattt

```
<400> 397
tttttttttt tttttttca caagttatat tttattttaa cacgaggatt aacatatagt
                                                                     60
tacaaggtca atacaagcct ccagtggaag ctctttattt ggtttaattc catctccaga
                                                                     120
gacaaacagg caactctagg acctttacag tggcgatcgg cctccacnac agcaaaatge
                                                                     180
ctccaaagtt tagaattagt gcaacacaca tacgaacgtt ttaaaggtgc tcaacatcag
                                                                     240
gttaaaatag aattotggac otttttaaaa agtttttgga tgatataago acaggaggca
                                                                     300
gagccaataa gaaacatgaa accaatattt ctggaaaaac acttagcatg aacgtcactt
                                                                     360
tttgacgtcg tgtaaacttt cttctgcaat gacggatgtt accaaaaggc attgagacct
                                                                     420
ttgcgctqcq ctqqttaqac aaqccqcaqq cttatctcca cqqtqaqcaq qataaaaacc
                                                                     480
cccaaqqaac agcccatgac aaccttctgt gcctttttat actttcccat cctacaaagg
                                                                     540
aaaaactqqq taaaqqacaa qttcctccct ttcattqcqt ttctaaqaac ttttcaqqqc
                                                                     600
aggitettit aaaattagte atettacaac acaacagtat tetagcacgg tqgcqaagtg
                                                                    660
acaggoggca gatacggggg aggaaggaga cgttcacggg aaattccaca ttctactcta
                                                                    720
tgtgaactgc tccagaaaaa tacagacatg atttcacagt aggattccca gagtaaatga
                                                                    780
tgatacatag gacaactgac ctcctctaag aagcccggct ggggcagcag tgagcttttc
                                                                    840
atggagccac gcagactggc ccggaagcaa cacccaggtt caacatttaa gagcactcgc
                                                                   900
tataacattc tttttggacg caggtggtgg aaaagtttaa aaaacaggcg gaggagtgac
                                                                    960
ggggggatac aagcatatcc tatactgggg gtgacggtca ttcaaagagc aaattactgc
                                                                   1020
agettatate tettecaeta tettecaaga aatgaateta teetgaeeca taatatgaaa
                                                                   1080
gatgcgacgc acatgcattc ccgaggctct aaaatcccat tttaaagaac cqtttcacat
                                                                   1140
cotogtggag tggagagtgg tocacttgac ttggtgaggt cagaagttcc tgaaqatccc
                                                                    1200
tgtcgtcccc gttggcgggg gagcccattg tggagctgtg gggactgcca cactcaccat
                                                                    1260
geacctgttg gtttgeaggg acagaggtge egeettqact etteteacce teteteatee
                                                                    1320
gggcttgtct ttcgtctgtc aagtcagtcc tcctgcgtga ctgatgggtg caccacgctt
                                                                    1380
aggtcacccg ttgcagggac cggaagtcca tggctctgcc gcaaccctga gcggtttgca
                                                                    1440
gtccccccg gggaagaagc agtcagagag gctcacgctc acctacttta aaaacccaaa
                                                                    1500
gccacttcct cttcacctgc ctgggcctca gcgtctctgc gcttgtggtt tctcgtcccc
                                                                    1560
gagggetgac tgagetgete eggaagggtg gtgtgtggte aacettggtt ggetgagagg
                                                                    1620
agcaatttee tggtttecae aagtaaagae agceecatee ettgggaeet gteettteeg
                                                                   1680
tecetgicee titiggettet ataggactic citigtettag atteataaac agcaagagga
                                                                   1740
actgaggatg cttgagggga ccacctagtt accaaagcca agcaaagaat aaagctgccc
                                                                    1800
gacatcatcc ccaggettec gtggegetet eggteacagg agetttagge caatggttee
                                                                    1860
tettgaetgt ttttgeecca aatgagagga ggggetgett tgetttaagg egtggeggeg
ggggggggt ggtggccaca gattagggga cctcaggttt tcctcaaaaa cccacacagg
gaaagaaact tggctctaaa agcaaactca acqaattcca catqccctqa aqaqcacqtg
ataaaataca agggtggtgg cggcgggatc cctcaaagga ccacgagagg cacggggtct
ttggtgatga aagtgctaac ctcqqcqqqq tqcqqtaqct cacacctqta atctcaqcac
tttgggaggc tgaggcgggc ggatcacctg aggtcaggag tttgagacca gcctgaccaa
cacggtgaaa ccctgtctct actaaaaata caaacattag ccgggcgtgg tggtgcacgc
                                                                   2280
ctgtaatcac agctatttgg gaggctgagg caggagaatc gctggaaccc aggaggtgga
                                                                   2340
ggttgtagtg agccgagatc atgccactgc actccagtct gaacaataga gcgagactcc
                                                                   2400
cqtctcaaaa aaaaaa
                                                                   2416
```

```
<210> 398
<211> 1495
<212> DNA
```

<213> Homo sapiens

```
4400> 398

Eggcattta ggaaaaattg tccttgggga tcctctaaaa aatccttttg tgtccaatag 60
caccttaaaa aacctgggcc ccagataatt gttgaacctc agatttagga aggaaaattt 120
ccaagctgtt agctaaaggc agtttcccc atttcacaga atattgggta gaagttccca 180
gtaaggaatt tttttcacqsq ccatcaaagc tcctcccata agcaagactc actttcacac
```

atctgaaagc	agtattgcca	gagcatgact	gtggcaatga	agcaaaatgt	tecctecace	300
tatccctccc	tcccatgtat	aatgcttgaa	gggtcagtcc	ctgaaataag	tagagagaaa	360
agtgtttgct	gaaagagcta	atacataagt	caacettcae	tggtaccaat	gaaggettee	420
cagttcaaaa	ttcaacaccc	agaaaaggca	gaaattttag	ctttaaatta	agtttaaatt	480
ttcagttatc	ccagtggact	aggcatttaa	atctgaggag	ttccctgaga	ttccatatga	540
ggaaatgaaa	aacattagct	tgtggattaa	atttaaagag	actgtaagga	gaaaaacata	600
ttttatgaca	tgcctcttaa	ggactcctat	tatttcaatg	aatttgttac	agttataata	660
tgcttgtgat	aaaaaggcat	tatttattaa	gaaatctaaa	atgtaataat	atttcaatta	720
tatagtttta	gagaaccttt	cttgcccaac	acttttctga	tagcaagttg	gacatccttg	780
tttctgaggc	tataaaccat	ggggtttagt	aatggagtga	caatcgtgta	tgtcaccgtc	840
accagectgt	ctttgttgga	cacatagttt	gctgtaggcc	tcaggtagat	gaaggaagca	900
cagccataat	gaacaataac	aacactgagg	tgagaggcgc	aggtggaaaa	cgctttccgt	960
ctgccctcag	ctgagggaat	cttcaggata	gtecteagaa	tgcagaaata	agaaacacag	1020
ataaacagaa	agggaaccac	aagtacaaga	actccacaaa	tgaatatcac	aaatccgtta	1080
acatctgtgt	tggtacaagc	cagaagaatg	actgctgaga	tgtcacagaa	gtaatgattg	1140
actttgttgg	tgctacaaaa	agggaggctg	aaaactaaat	ttactactgt	aagagaggcc	1200
aagaagccac	caattgcaca	ggcagetgce	agttttccac	acacctgcca	gctcataaga	1260
gtggggtaat	gcagagggtg	acaaatggca	gcatagcgat	cataacccat	cacacccaat	1320
agcaggcagt	tggtaatggc	aaaaccaagg	aagaagaaca	tttgaagagc	acaacagttg	1380
aaggagattg	tcctggccac	agaaagtaga	ttgatgagca	tcttgggtag	aatgacaaag	1440
gtgtagaagt	ctcagatgtt	gagagaaagc	caggaagagg	ccattggtgt	gtgga	1495

<210> 399

<211> 2752 <212> DNA

<213> Homo sapiens

<400>	399					
gcgaccgcca	geggetacae	ggtacccgcg	tgagaagctc	aagtccatga	cgtcccggga	60
caactataag	gcgggcagec	gggaggccgc	gegeegetge	cgcagccgcc	gtageegeeg	120
cagccgcagc	cgccgctgcc	gccgaacctt	accetgtgte	cggggccaag	cgcaagtatc	180
tggaggactc	ggaccccgag	cgcagcgact	atgaggagca	gcagctgcag	gaggaggagg	240
aggegegeaa	ggtgaagagc	ggcatccgcc	agatgegeet	cttcagccag	gacgagtgcg	300
ccaagatcga	ggcccgcatt	gacgaggtgg	tgtcccgcgc	tgagaagggc	ctgtacaacg	360
agcacacggt	ggaccgggcc	ccactgcgca	acaagtactt	cttcggcgaa	ggctacactt	420
acggcgccca	gctgcagaag	cgcgggcccg	gccaggagcg	cctctacccg	cegggegaeg	480
tggacgagat	ccccgagtgg	gtgcaccage	tggtgatcca	aaagctggtg	gageaccgcg	540
tcatccccga	gggcttcgtc	aacagcgccg	tcatcaacga	ctaccagccc	ggcggctgca	600
tegtgtetea	cgtggacccc	atccacatct	tcgagcgccc	categtgtcc	gtgtccttct	660
ttagcgactc	tgcgctgtgc	tteggetgea	agttccagtt	caagcctatt	cgggtgtcgg	720
	ttccctgccg					780
ctgatgaaat	cactcactgc	atacggcctc	aggacatcaa	ggagcgccga	gcagtcatca	840
tectcaggaa	gacaagatta	gatgcacccc	ggttggaaac	aaagtccctg	agcagetecg	900
tgttaccacc	cagctatgct	tcagatcgcc	tgtcaggaaa	caacagggac	cctgctctga	960
aacccaagcg	gtcccaccgc	aaggcagacc	ctgatgctgc	ccacaggcca	cggatcctgg	1020
agatggacaa	ggaagagaac	cggcgctcgg	tgctgctgcc	cacacaccgg	cggaggggta	1080
gcttcagctc	tgagaactac	tggcgcaagt	catacgagtc	ctcagaggac	tgctctgagg	1140
cagcaggcag	ccctgcccga	aaggtgaaga	tgcggcggca	ctgagtctac	cagaagaaat	1200
cctgggaact	ctggctcatc	cttacgtagt	tgcccctcct	tttgttttga	gggttttgtt	1260
	ggggggtttt					1320
ccttggtttt	gttgcctgtt	aaggetgaac	aatagaattg	gccaggacct	aggtteteat	1380
attettggta	ttcctcctgg	atggaaaggc	tgttggcatc	aataggggac	agaggctgat	1440
gctggagtgg	ccagtagagg	tggtggagca	gagcacccat	cttttaagtg	gggctgtatc	1500
	tatttaaaag					1560
tgtaaatett	cgcagtgttc	taaacaaagt	tcagtcttct	gettgeecet	ttccctcact	1620
gatgtctgca	cttggttgag	gtctcctgga	gcctcacagg	ctctgctgtt	ctccacttct	1680

cacctgccat	ccacgccctg	caagctcatg	caaacaccct	ttcttcctcc	tgcggcagag	1740
ttgttcaggt	tgcctgggca	ggggcttaaa	cagtgccagc	ccctgccatc	ccaaagctat	1800
tgttaagccc	cccaggcgtc	ctccacccac	gcccactagc	ctgccatgtc	cacagttcct	1860
tgggctgctg	aggggctagt	gcagtggtcc	tgacctctct	tatcaagagc	acacttcttt	1920
gctggttgct	ccttttgagc	atatgcgtgt	gattatttgg	aacagttaga	cttgccacgt	1980
tgggtcagtt	ttagaaattg	tttctagcta	gagggactgg	tgtccttcca	agtctagcat	2040
ttggggtatg	gaaaattgtt	gtggtgtgtg	gtagggtttt	tgttttcttt	tttgagtttt	2100
ttttccccct	ttagtctccc	tggctttttc	ctttcccttc	ccttctccac	tggccagctt	2160
gggcctcatc	ctcatgtcat	ccttctagga	aggegeetge	cccatcttgt	ctgccggcag	2220
catgcatcca	aggccagagc	teaggeetge	agactgggct	ggtgcctcct	ccgcttcagg	2280
gtatgggagt	tggtgaaggg	gctttcaaaa	aataataaga	aaaaaaaggt	aaagtetttg	2340
gtagcttcta	tccactcaga	tectggaagg	cagcaaggtt	ttgtggatct	agattcatta	2400
ggaatgtctt	cttgtcagec	aggccaggac	ccgggcttgc	caagagcaga	ggecetecea	2460
gcaaccagga	taccaccact	ttgggggctt	tgtgtacaga	ggtccgggtc	tgagacetea	2520
taggctgcag	aaatctgggg	cagccaccat	caagaagccc	ctctcagggg	ccagaactcc	2580
tttgccagcg	tggatttctc	aagtegggae	tgcataatta	aagcagttgc	agttttattt	2640
tttttacagc	ttttttccca	aaaatgattt	atagttgtgt	gtgcagcact	tcgccctgaa	2700
atgtgtgctc	tacaataaac	aaccaaatct	aatatattt	gaaaaaaaa	aa	2752

<210> 400

<211> 2354

<212> DNA

<213> Homo sapiens

<400>	400					
agccctgctc	atggcagtga	ggtgggetee	cagetgetga	ggccacccag	cactagtgag	60
tgacttggca	tttttattt	tgttcagatc	acaagaatgg	gcattacatc	atcccacaga	120
tggctgacag	atctcggcaa	aagtgcatgt	ctcagagcct	tgacttatcc	gaattggcca	180
aagctgctaa	gaagaagctg	caggcgctca	gcaaccggct	ttttgaggaa	ctcgccatgg	240
acgtgtatga	cgaggtggat	cgaagagaaa	atgatgcagt	gtggctggct	acccaaaacc	300
acagcactct	ggtgacagag	cgcagtgctg	tgcccttcct	gcctgttaac	ccggaatact	360
cagccacgcg	gaatcagggg	cgacaaaagc	tggcccgctt	taatgcccga	gagtttgcca	420
ccttgatcat	cgacattctc	agtgaggcca	ageggagaea	gcagggcaag	agcctgagca	480
	caacctcgag					540
actacgacag	cgtggcctct	gacgaggaca	cagaccagga	geceetgege	agcaccggcg	600
ccactcggag	caaccgggcc	cggagcatgg	actcctcgga	cttgtctgac	ggggctgtga	660
	agtacctgga					720
cagctcatga	aggtcaacag	tagectgage	gacgagette	cggaggetge	agcgagagca	780
ctttgcaccc	atagatccac	aagctgcagg	cggagaacct	gcagctccgg	cagcetecag	840
ggccggtgcc	cacacctcca	ctccccagtg	aacgggcgga	acacacaccc	atggcgccag	900
	acaccgcagg					960
tgaagccctt	tgggggcccc	cctggggacg	agctcactac	gcggctgcag	cctttccaca	1020
gcactgagct	agaggacgac	gccatctatt	cagtgcacgt	ccctgctggc	ctttaccgga	1080
tccggaaagg	ggtgtctgcc	tcagctgtgc	ccttcactcc	ctcctccccg	ctgctgtcct	1140
gctcccagga	gggaagccgc	cacacgagca	agctttcccg	ccacggcagt	ggagccgaca	1200
	gaacacgcaa					1260
tagagctggg	caaagaggaa	gacttccacc	cagagctgga	aagcctggat	ggagacctag	1320
atcctgggct	tcccagcaca	gaggatgtca	tcttgaagac	agagcaggtc	accaagaaca	1380
ttcaggaact	gttgcgggca	gcccaggagt	tcaagcatga	cagcttcgtg	ccctgctcag	1440
agaagatcca	tttggctgtg	accgagatgg	cctccctctt	cccaaagagg	ccagccctgg	1500
agccagtgcg	gageteactg	cggctgctca	acgccagcgc	ctaccggctg	cagagtgagt	1560
gccggaagac	agtgccccca	gagcccggcg	ccccagtgga	cttccagctg	ctgactcagc	1620
aggtgatcca	gtgcgcctat	gacatcgcca	aggetgecaa	gcagctggtc	accatcacca	1680
cccgagagaa	gaagcagtga	cctctctccc	cacaccctca	cctgcaccct	aggacctcac	1740
	agctgggcca					1800
aagtgccctt	agtgctgcca	cactccctgg	cagccaggtg	ccctggtgcc	cacccctgtc	1860

gagecectaa g	gatggggag	gtggggggc	aggagettet	gtcccccaca	ttccatgcac	1920
ctcccctctg t	atatagcat	ctcccccctc	ctagtgagca	ggggcctgca	aggcatcact	1980
cccagcccct c	gccttctag	ggcaccetca	gcaaaggggc	aggtggggac	actccaagtg	2040
gggcagctct c	cgtacatgc	gccccacccc	catgagccag	ttcagcccta	ctgggggctg	2100
agcgggggca t						2160
agccccttgc t	getetecet	ttaatgccat	atggcccctg	cctagggcac	aggccccaac	2220
ctgtgtgctg g						2280
cttccccacc c	cttaatttt	aactttgtgg	taactgagtg	cccccgcgtg	cctgcgtgtt	2340
gagtgtgtgg g	cgg					2354

<210> 401 <211> 3455

<212> DNA <213> Homo sapiens

agatatttaa	gctatggttc	cggtcccaaa	cgattcccct	tggtagatgt	tcttcagtat	60
gcattggaat	ttgcctcaag	taaacctgtt	tgcacttctc	ctgttgacga	tattgacgct	120
agttccccac	ctagtggttc	cataccatca	cagacattac	caagcacaac	agaacaacag	180
ggagccctat	cttcagaact	gccaagcaca	tcaccttcat	cagttgctgc	catttcatcg	240
agatcagtaa	tacacaaacc	atttactcag	tcccggatac	ctccagattt	gcccatgcat	300
ccggcaccaa	ggcacataac	ggaggaagaa	ctttctgtgc	tggaaagttg	tttacatcgc	360
tggaggacag	aaatagaaaa	tgacaccaga	gatttgcagg	aaagcatatc	cagaatccat	420
cgaacaattg	aattaatgta	ctctgacaaa	tctatgatac	aagttcctta	togattacat	480
gccgttttag	ttcacgaagg	ccaagctaat	gctgggcact	actgggcata	tatttttgat	540
catcgtgaaa	gcagatggat	gaagtacaat	gatattgctg	tgacaaaatc	atcatgggaa	600
gagctagtga	gggactcttt	tggtggttat	agaaatgcca	gtgcatactg	tttaatgtac	660
ataaatgata	aggcacagtt	cctaatacaa	gaggagttta	ataaaaactg	ggcagcccct	720
	gaaacattac					780
	gaactagaag					840
	tctcagaaat					900
aggagaccca	aaatatctag	agcagccatc	aagaagtgat	ttctcaaagc	acttgaaaga	960
agaaactatt	caaataatta	ccaaggcatc	acatgagcat	gaagataaaa	gtcctgaaac	1020
agttttgcag	tcggcaatta	agttggaata	tgcaaggttg	gttaagttgg	cccaagaaga	1080
	gaaaccgatt					1140
	aaaattattg					1200
	aggtgtcaca					1260
	gtaaacttgg					1320
	atgtatctca					1380
	ttcctcatct					1440
	catgatgaag					1500
	gccgcagaac					1560
	aatgagttta					1620
	atactagctg					1680
agaaatggaa	ccacacctcc	aagaaaagct	gacagatttt	ttgccaaaac	tgcttgattg	1740
	attaaaagtt					1800
actctgtgag	cgatttgccc	gaatcatgtt	gtccctcagt	cgaactcctg	ctgatggaag	1860
	cactttccct					1920
cttcctgtca	cagggtttgc	ttgttgctgc	tatagttttt	aactttttt	tattttaata	1980
actgcaaaag	acaaaatgac	tatacagact	ttagtcagac	tgcagacaat	aaagctgaaa	2040
atcgcatggc	gctcagacat	tttaaccgga	actgatgtat	aatcacaaat	ctaattgatt	2100
ttattatggc	aaaactatgc	ttttgccacc	ttcctgttgc	agtattactt	tgcttttatc	2160
	caacagcttt					2220
tgttcagcac	tgtgtacgat	acataatatt	tggtagcttg	taaatgaaat	aaagaataaa	2280
gttttattta	tggctaccta	tgtgtttgta	agcaggtata	ttgtatatta	gtgtattagt	2340
aatactagat	aaatgaattt	tgtctgggga	ttaagattgg	atagttaata	gattaataca	2400

atcttttaat	tctgctctaa	tgctagcaaa	ttggaaaatg	tttaagtctt	tgacacttaa	2460
atttatctat	atttttaaca	aagttcttga	acttagtatg	gcaccggaac	ctgttttgaa	2520
ttcagtcagg	tttttactca	agtaagtggt	tgatttttt	taagtcaaac	tacactgaaa	2580
cttttatcct	tttcttagat	taatcttact	ttttaaatgt	atttacaata	tacagcaagg	2640
tgattatttc	aagagaatcc	caaagtactt	gaataagggc	tattgtaaaa	tttaaaagaa	2700
atatttatat	atacacatat	atacacatac	acacatgtat	atatatattc	ttcataatgg	2760
aggacaatgt	tttgcaatat	ataaatcatt	ctatttttgt	aaattgtata	tcactttaat	2820
tgaaaatgtt	ctctactaat	taatactgtg	aaacaaaatt	gatgttgttt	aactagaagt	2880
tatgagtatc	ttaactgcct	ttattccttt	tcaaaaagga	aaaagctgta	gaacattttg	2940
tagatgaaac	tactgtttaa	gattaatgaa	ttaatattgt	gaatgaaaat	caaaatccat	3000
actttaaagg	taatcatgtt	actaacaacc	tatttttgaa	ttcataaaaa	tttctttata	3060
aatgatgttt	tgtgaacata	gtaaaataga	ccattatact	atgtgtatgt	ttgatacagc	3120
gtcgccaaaa	ctagtgttct	ttattagtgc	ctctcacaaa	agatcctgga	tggaggagta	3180
agatgaaata	ttatgctatt	atatgatgct	gtttgtaaag	gtattaatgt	actagtaagg	3240
tgttaatgac	aaggaattag	tactattcct	gttgtaaagt	tagattttgc	atattgtatc	3300
tatcaaaata	tgtttgggtt	tagattttaa	gttgtctact	gagcagattt	ctgcattggt	3360
tttccagtcc	tgttaaaagt	ttagaaactt	catatgtgtc	atcacagctt	ttgtaaagaa	3420
agtatcctta	atattttatg	acattctacc	acaaa			3455

<210> 402

<211> 1266

<212> DNA

<213> Homo sapiens

<400>	402					
gcacaggtct	atgtccggat	ggactctttt	gatgaggacc	tegcaegace	cagtggctta	60
ttggctcagg	aacgcaagct	ttgccgagat	ctagtccata	gcaacaaaaa	ggaacaggag	120
tttcgttcca	ttttccagca	catacaatca	gctcagtctc	agcgtagccc	ctcagaactg	180
tttgcccaac	atatgggtgc	ccattgttca	ccatgttaaa	gagcatcact	ttgggtcctc	240
aggaatgaca	ttacatgaac	getttaetta	aatacctaaa	aagagggaac	tgagcaggag	300
gcagccaaaa	acaagaaaag	cccagagata	cacaggagaa	tagacatttc	ccccagtaca	360
ttcagaaaac	atggtttggc	tcatgatgaa	atgaaaagtc	cccgggaacc	tggctacaag	420
gatgggcata	attctaaaaa	tgaactacaa	agggttaatt	tttattaaat	gtatcaacaa	480
cctttgtgaa	gtggttagaa	tatggtaaat	gaccccaaag	tctattgagg	tgagcttgag	540
aaaaaaaga	gaggagtttt	ggaacaagtg	cccatgatga	gagaagaaac	tttttgtgat	600
atttttctgc	ttgtaagtat	tatcaaatca	actgtataca	tgcactattt	ccaaccatga	660
tttcagaaag	acatgcatgt	cagagaagag	tgaaatattc	atgtcttaac	ttaagtagac	720
tgtttttaaa	cagctggtcc	agttttttt	cctaacattg	taccatatct	atcatctgtc	780
aattactgtt	actttaaagc	taaagattac	tttgatggcc	cagctacatt	tgcaatgatg	840
tgcacgtaaa	cactgttaag	aggttaaagc	ttgtatacaa	tctgttactg	tgaaataact	900
aaattgggct	ttaaaaaaat	cttagtattt	attgatcttc	attcacatat	acagttgaaa	960
tttaaaataa	cagatggtta	ttccaatgct	gctgaaacct	tttctaaaaa	atacttgttt	1020
tgttggttga	atgtgatgag	aggcgcttct	gggcagtctc	tcttctctcc	cacccgtctt	1080
tectectecg	agtacccctt	ctccagcttt	gtactagcca	tgtaaaaccc	aaggttttct	1140
ttaaaacatc	agaagagatc.	tegteeteca	tgccccaaaa	aagccaactc	attggaggtg	1200
ttacccctgg	gagcagtgtt	gcatttgtct	ttttgtcttt	ttttgctctt	tggaggatgc	1260
agagge						1266

<210> 403 <211> 1006 <212> DNA

<213> Homo sapiens

<400> 403 gacatacact ttctgctttt cgttaatgat caattetett qaccataatt cagqgtctaa 60 ttettgaage ttttgqagaa etaagqqaee aactgqaeca aqteaaaqaa qacatqqaqa 120 ccasatgett catetgtggg ataggeaatg attacttega cacagtgeca catggetttg 180 aaacccacac tttacaqqaq cacaacttqq ctaattactt qttttttctq atqtatctta 240 taaacaaaga tgaaacagaa cacacaggac aggaatetta tgtctggaag atgtatcaag 300 aaaggtgttg ggaatttttc ccagcagggg attgcttccg gaaacagtat gaagaccagc 360 taaattaaac tcaqacccaa tcacctctaa aaaccaaaac cctacccctc tctctccctc 420 totcaattto totgototot togaaacatt ttoctgattt totgaattgo cagoottoto 480 tgttttctgg qagcatcgaa gctctgtttc gqaagagctg tttcctcccc ccaccttttq 540 tatttacttt gagactaaag actgaagaat aatctaaatt catactcaga caaaaaaagg 600 aattotggaa agaaaaccat totggacact qtcataacac acatagatag attttcttct 660 gagacteccg gagtettete gagetacqag acetteacag agacacqtqq cagecacact 720 cacccagcet etttatttca ecateetgga aggaaactgt etgtetaatg gteacagage 780 actgtagcac ttaacagatt gccatggaca ccagttgcga agggaaatag tgccttacta 840 tatgtgggtt gagctatgca gaagatacgt gcatgaaaaa acatctttat tttctttatg 900 togacctttc ttttcttaga ttgattttgt gaggtttttt ttttttcctt tagccttttc 960 tttagggggg gagggtaaaa aaagcagttt gcccttaaaa aaaaaa 1006

<210> 404 <211> 3115 <212> DNA

<213> Homo sapiens

<400> 404 ttttttttta cctaaaaaga aataaaatgt tttactcatt tacacaaata cacacactga 60 agtecaccet gggagetggt agaacaattt cagtetcaga cocgtetgtt ttccagggte 120 ctccqaqcct qqqcttcctc aaqaqcqtqq cccaaqqqcc ccacaqccca qatccqqqca 180 qccccaccac cttcactqaq qaqqctccqa aqctccqttc ccqctqctcc ttacaqacaq 240 gggaggcaga tatacacaaa cgcgcctcgg cccagcttgg ggctggcggg qgaggctqtq tetteaaace tttgcccca gttgggtcag tagaaceace agtgtcctcc cettctacet 360 cccagetcca etttgqaqge tqaqqaaqeq aqaqqtttte taqqaqaatt tqqaqeeetq 420 gagattgagt tcacagtgta tgttctgggg gcgctggtgc aqtcagcggt ccagtctcca 480 gcctgcaggc gtgcacactg gggtggacga tgggtggccc cgcaggtgta cacatttggg 540 tggccccggc ccctataccc cagtgttctc tttgatccag tcccgaaaca gagggagcct 600 tgtgtacacg cctggcttgt tcctctgagc gcagccgtct ccccagctca ccacaccggc 660 ctggaagatc cgcccatccg cctccacgct ggacaggggt cccccggaat caccctggca 720 ggagtccacg cegccgctga ggaagcccac gcacatcatg cgcggcgtga tctgctgcgg 780 caggaggttc togcaggtgg totggttgat gacgoggatc toaccotttt gcaggatcag 840 egegeeagtg cetecatact gggtgtgtee ceageeegtg acceagatgg cettgeegge 900 agggaagaca tgggaggegt ceggcaggea gatgggeege accatggage tgtactetge 960 eggtttetee ageteeagea gegegatgte atagtegaag gtgaagteat tgaagaaggg 1020 gtgggagatg atgegettga geetgegete etgeacecea ggggegetge getggetetg 1080 gtcgtgcaag cccaggaagg ccgtccactg cqtgqggtct gagtacctga atcctctgtc 1140 ategatgtag cagtgtgegg cagagaceag ceagttggga gagatgaggg aageacegea 1200 gatgtggccc tggcccagag catgcaggct tacctgccag ggccactcgc cctcatccgc atcogtgccc ccaacaacac gagcetgtet cgtgaatgac cgcagcccac agtcgcagte 1320 etteteatet gageegtege tacagteete ettecegtea cacteagggt tgecettget

1500

caagcagage coattgagge ageggtaggt gtgtttggta caagtgaega egtteacett ggggeaggag gcctegtegg acceptece acadtegte tteccattge actgeteget

tttcgagagg cacttcccat tggaacacct gaaggtctgg gtccggacaa ctgcaccct

getegteget	gttgtctccg	cagtcgttca	aactgtcgca	gacccagaag	aggggcttgc	1620
agaacttgtt	cttgcacgtg	aactggtggc	cggcgtcgca	actgcagttg	ageteatege	1680
tgtggtcggt	gcagtcggcc	cagecateae	agcgcagctc	cttccggata	caccgccccg	1740
tgcggcacgt	gaactgcccc	gggcatgggt	cactggagtc	gtaggagagg	tattcagcta	1800
agaagccggt	gtcggtgtag	gactgatctg	agtggaagcg	aactgtgatc	ttgttgctgt	1860
tgctggtgac	gacgaactgg	gacctctctc	cgcagtattt	ctccccattg	atctccacgt	1920
agtccttggg	gcaggtgccc	gcaggcacgc	cgggctccag	caggtagaag	aatttgaagc	1980
gcaccttcac	atgctggttg	ttgggcacct	caatgttcca	tgtgcagtca	atgttgggtg	2040
ggtagtggcc	tgggtagtag	gggctgttga	atgtcccctg	ggctttacgt	aageggeete	2100
cacagetget	catcctaggc	agctggaaga	aggtggcctc	aaagcccggg	atgccgccgc	2160
tcagtgttgg	ttatcagtgt	gatgagcagg	acgttcgtgg	gagggagtgg	aaggtcaggt	2220
			gcaccagggg			2280
atgggtgttg	tacaccgtca	accaggtgtc	tgccgcgctc	gtcgcaggac	gcaaggtcaa	2340
agctgcggaa	ggtgaggctc	agcactgagt	cggcgtcccc	ccgcagggcc	cactggcagc	2400
gggcatgagc	ggggtagggg	ctgtcaggga	agccgggcgt	ggtgaagcgc	atcagctcca	2460
caccgcgggc	gtgcaggcca	aagctgcagc	tgttgtcctg	ggtcctctgt	actgttttgg	2520
agteegtggg	gaaagccacc	actgaggtga	ccacaaagga	cttcagggag	cgcgcccgcg	2580
ggggcagcat	gactacgcgc	tcctcggcca	tgacgcgctc	ggcctcctcc	accaggtgct	2640
gcgggatgct	gaactcagac	cagtagtagg	cgatgacgct	gccctcgctg	aaggccgtca	2700
cagccgactc	cttgtggtag	gggcccagga	atgggactcc	gctgtacagc	agetteageg	2760
			actcagtgga			2820
ccacaaaatt	ctcatttgtg	atcctcatgt	agccattgaa	gaccttctgg	acacgcacgt	2880
cccggtactg	caaatgccac	accaggaagc	cgatccccag	caagaccaag	aggaggccga	2940
			ccgggccatg			3000
			ccaagccatt			3060
tgtacttgag	tecegegeeg	aagtccttcg	ggccccctcc	gcccttgcga	cgaaa	3115

<210> 405 <211> 1264

<212> DNA

<213> Homo sapiens

<400> 405 oggcacgagg aagatttagg taatctctgg gaaaacacaa gatttacaga ctgcagtttt 60 ttogtgagag gacaagaatt taaageteat aaatetgtge ttgeageteg ateteeagtt 120 tttaacqcca tgtttgaaca tgaaatggaa gaaagcaaaa agaatcgagt ggaaataaat 180 gatttagacc ctgaagtttt taaagaaatg atgagattca tttacacagg gagagcacca 240 aaccttgaca aaatggctga caacttgttg gcagctgcag acaaatatgc actggaacgg 300 ctgaaggtca tgtgcgaaaa agctttgtgt agtaacctct cagtagagaa tgttgcagat 360 accettgtcc ttgcagattt gcacagtggc agaacagttg aaagcacaag ccatagactt 420 tattaatagg tgcagtgtac ttcgacaact tgggtgtaaa gatgggaaaa actggaacag 480 caaccaagca accgacataa tggaaacatc aggggggaag tccatgattc agtctcaccc 540 tcatttagta gcagaagcet ttcgageact agcatetgca cagggtecac agtttggeat 600 tocacqcaaa cggctaaaac aqtcctgaaa tottccatga acagttgaaa aatggaattg 660 actttcactc ctccaggtcc agaaggattc taatacacaa accataagca agagttgttt 720 ctgttatttt gtccacagaa cagaagetga aaaagcatat tgettgeatt teaggtggat 780 aatttatggt ttattcttca gctttaaatt agactgatta attcacttca aggccttaaa 840 ttatcttcaa tgacttctct tgttcatata atactttaat ttttttttat tgtgccttgt 900 cattttgacc aaggetatge aggattgeac tageteeata atgeagtaat attgataact 960 gaagatacta agtttcaaaa ggatcttcca ttattttqca aaaaqaaaaa tqaattttat 1020 agggtttgtc ctatgctatc tcaaagttta agttctcttt aaaagcactt gtattggaga 1080 ttaccagtaa tatctccaat ctaagttcta taaatatggg agaaccctct taccttcaag 1140 gtaagttatg gcaatacact gcttcaattc taatttattt ttcatttcag ggggcaaata 1200 tgcaatgagt tggcctagat ttttagtgac atttatgatg tttgtcttgt atgttaactg 1260 teca 1264

```
<210> 406
<211> 2001
<212> DNA
<213> Homo sapiens
<220>
<221> misc feature
<222> (1) ... (2001)
<223> n = a,t,c or g
```

<400> 406

cagogtggcg gaattootgg aaagttocag gaagactotg ggtotgtgga otgggotetg gggccatttt ggggaatttt ccaggctgat tttqqctqta tqcqatttta tctttctqca 120 cagacateag accetgteet caggatgtga tggggeecet cececatete ceatectace 180 agoctqtqtc caqqtqqqqq tqqqqcaqqq caqacaacaq qqtccctqtq tctcqqqcaq 240 caatgotgoo cootttootg coccaacate cocageagae acaagagatg gagactatga 300 getgeteteg tggetgggte tegggggtee tgeaccetea ggagetgaeg etgacgeaet 360 ccactgcctg tcaccaggaa cctacctcgc gccatcttca tctccatccc actggtgacc 420 ttcgtgtaca cgttcaccaa cattgcctac ttcacggcca tgtcccccca ggagctgctc 480 tectecaatg eggggetgt gacetteggg gagaagetge tgggetaett ttettgggte 540 atgeotgtet cegtggetet gteaacette ggagggatea atggttacet gtteacetae 600 tecaggetgt gettetetgg agecegegag gggcacetge ceageetget ggccatgate 660 cacqtcaqac actgcacccc catccccgcc ctcctcgtct gtgcccatca aggtgaacct 720 totcatecce gtggcgtact tggtcttctg ggccttcctg ctggtcttca gcttcatcte 780 agagcatatg gtctgtgggg tcggcgtcat catcatectt acgggggtgc ccattttctt 840 totgggagtg ttotggagaa gcaaaccaaa gtgtgtgcac agactcacag agtccatgac 900 acactggggc caggagctgt gtttcgtggt ctacccccag gacgcccccg aagaggagga 960 gaatggcccc tgcccaccct coctgctgcc tgccacagac aagccctcga agccacaatg 1020 agatttttgt agagactgaa gcagttgttt ctgtttacat gttgtttatt gaggaggtgt 1080 tttggcaaaa aagttttgtt ttgttttttt ctggaaaaaa aagaaaaaag atacgactct 1140 cagaagectg ttttaaggaa geeetaaaat gtggaetggg ttteetgtet tageaetgee 1200 ctgctagetc ttcctgaaaa ggcctataaa taaacagggc tggctqttcq ctcqtqctat 1260 ggggagtecc tgatgggcac agacgggagt ggctggggcq tacctcgqtq qqtqcacaca 1320 tgttgctggc caggaagatg ccgtggcagg ccctggagga ggctcttgac attagggggc 1380 thtgctgctt gacacaggcg ctccctacca tggcacccag agtccccctg ccctaaaggg 1440 atgtcgagga tggggtagca gctcagtccg cccctacccc aggcccctcg atgccagtct 1500 gageteggee acceaggaga geteagggge tecaggetgg gattgtettt ettecegtaa 1560 atcaccacaq agtgaaggtc aggacttcag agcccacagt ctcaccctgg cttacaggtg 1620 gggaaaccga ggccctgaga taggatggaa cagacgtggc cactgctgtt ggtgcctcgg 1680 cetetetgte cecaqaaage acagageage atgteetggg ggetttgagg cetgcaggga 1740 actocagggg cttcatgtac agcaggcaca caccecagce cttccacggt gcccaggaga ttggaccttc agggagggca aagggcgcct gcctqqccaq qqcatqaqq qtttqqcaqq 1860 agccacccaa eccaggteet ecagaggeet tgetggacag gaagagggtg aggcgtgage 1920 aaaatagtca ccacggatga qacccaqcgt cccqaattcc tccacatgga ctagtgatgt 1980

```
<210> 407
<211> 1652
<212> DNA
<213> Homo sapiens
```

cgaacaann nnnttgteet a

2001

<400>	407					
tgeggeegee	ctcgtggctg	agtacctcgc	cctgctcgag	gaccaccgcc	acctgcccgt	60
gggctgcgtt	teetteeaga	acateteate	caatgtgcta	gaggagtccg	ccatctccga	120
cgacatcctg	tegecegacg	aggagggctt	ctgctccggg	aagcacttca	ctgagctggg	180
gctggtaggg	ttgctggaac	aggcagccgg	ctacttcacc	atgggcgggc	tctacgaggc	240
ggtgaatgag	gtctacaaga	acctcatccc	catcctggaa	gcccaccgtg	actacaagaa	300
getggeegeg	gtgcacggca	aactgcagga	ggccttcacc	aagatcatgc	accagagttc	360
cggctgggag	cgcgtgttcg	ggacgtattt	ccgcgtgggc	ttctacggcg	cccacttcgg	420
tgacctggat	gagcaggagt	ttgtgtacaa	ggagccatcg	atcacgaagc	tggcagagat	480
ctcacaccgg	ctggaggagt	tctacacgga	gagatttggc	gacgacgtcg	ttgagattat	540
caaagactct	aaccctgtgg	acaagtccaa	gcttgactca	caaaaggcct	acatccagat	600
cacgtatgtg	gaaccgtact	ttgataccta	cgagctcaag	gaccgggtga	cctactttga	660
ccgcaactat	gggcttcgca	cattcctgtt	ctgcacgccg	ttcacgccgg	atgggcgcgc	720
acacggggag	ctgcccgagc	aacacaagcg	taagacgctg	ctcagcaccg	accacgcctt	780
cccctacatc	aagactcgca	tccgtgtgtg	ccaccgggag	gagacggtgc	tgacgcccag	840
tggaggtggc	catcgaggac	atgcagaaga	agacacggga	gctggccttt	gccaccgagc	900
aggacccacc	agatgctaag	atgctacaga	tggtgcttca	gggctctgta	gggcccaccg	960
tgaaccaggg	tcccctggag	gtggcccagg	tgtttttagc	agagatcccg	gaagacccca	1020
agctcttccg	gcatcacaac	aaattgcggc	tctgcttcaa	ggacttctgc	aaagaaatgt	1080
gaggatgcgc	tgcggaaaaa	taaggccctg	attgggccgg	accagaagga	gtaccaccgt	1140
gagctggagc	gcaactactg	ccgcctgcgg	gaggctctgc	ageceetget	tacccagcgc	1200
				actccttgaa		1260
ttccgaaagg	cagacctctg	agcccacaag	gaccaaagct	gtacctagag	gaaccagcac	1320
ccgggcctca	gctgtctgtg	ctgcgagggg	agtctgccct	ggtgcccact	gggctgtggg	1380
				gtccccatct		1440
				caaaaaaaaa		1500
				gaaggaaaaa		1560
				ggggggaggg	gaaaaacccg	1620
ggggttaccc	aatttaatcc	ccttgggaaa	ag			1652

<210> 408 <211> 668 <212> DNA

<213> Homo sapiens

<400> 408 ggcccacaqa tgaccccta cctctqacat ttqataaaqc tqqqqqtqac ctaqqqcqaq gggcagcagt ggcagtccac gcccctctct ccactgcagc ccaccgttgc agatttcctt 120 aacctggcct ggtggacctc tgctgccgcc tggtgagtcc tgagcgggag gtgggtagag 180 aaggtgetee etggeeggga gggeteagaa gagaagtagg geatggeate gteetetget 240 gaccacctgc actoggetec cogtgegetg caggtecetg ttccageage ttctctacgg 300 cotcatotac cacagotggt tocaagoagg taggtaggge tittggaggeg cotcotcaag 360 teegggteec caatetgage taagacgact ceatggggag ggtggggtet acgactgagg 420 gaggeeggag acettgeeag ggtetgtggg eggagetgag gegetetggg eeetegeaga 480 ccccgcggag gccgagggga gccccgagac gcgcgagagc agetgcgtca tgaaacagac 540 ccagtactac tteggetegg taaacgcete etacaacgce ateategact geggaaactg 600 660 ctccaggtgc tggcagtggg gcgggaccag aggccaaggg cggaacctgt gagcggcctc atgeegaa 668

<210> 409 <211> 1854 <212> DNA <213> Homo sapiens

<400> 409

gagagetage accatagett caataccetg attqaatgtc accettgact gectaactca 60 tetettteee aagteatagg ttateeetgg teetggetga ttateacagg cagggaggga 120 gggaaagagg caaagggaga aggccctgtg tgggactcaa acttgctcac cccttttctg 180 taatctgcag ctcactcttg ctgccactca gcagatctgg tctccctaac tctttttcc 240 cctgcctcta ctttgagact caattgcttc cccaggactt tttttctccc caagccaaag 300 aatgaaagtt caatcatccc agetcagtte ttatcaagca ttecagetag cetatgccag 360 agatgttaca cagctcttta ataatagtgg ccatagctgt aataacaatg acaacagtag 420 gtagoggtag toataccaac agtagggcag tgcattttat attacaactg gtttcttgct 480 ctagtagget tggggatggg tgaagaegga cagggetgge gcagaecett teetteteet 540 ctccagccca cagtgatgtg ggcttttgca agacagcctg cttccattca gtagtgtggg 600 aaaagttoot ttttggotta acaatacocc tgagacottg ttcagtggge tgtgtototo 660 cotgggatge tgggagcace aagtgtggee cgagctaggg ctgctgaett cctctgggeg 720 cctctggget gcgagggtet cttacaggaa ttgaggcect ttgctgctcc aagaaatgct 780 gaggetgtgg geagaggggt gtacccaagg ggactettge tetgtgtetg actttggggg 840 atccccaggt gggcagggca ggaaggaagc ggctcccagc actgcaaagg ggcagcagca 900 960 ttacaqctca gccttccaga cattgtagat ccagttgaga taggctqaga ccttgqtgta tactcctggg gtgctcgggc ccccgcagcc atagccccag ctaacgatgc ccaccacatg 1020 ccactggtca gattggtaca tcaggggccc accactgtca ccctggcagg tgtccacacc 1080 cccttccggg atgcctgcac acatcatctt ctcggtgact tccccctggt acgcatcgtc 1140 tgcattgcac cgtgtgctgt caatgacctg gactgacgcc tgcagcagta tgtcagacat 1200 1260 cttccctcca ttctgcttcg taaagcccca tccaatgatc cagagtgggg tggctggagt gageteetea teaaagaagg geagacagat gggeetgaet gtgeetgaga aagtgagtgg 1320 1380 gaactgcagc ttcatgaggg cgatgtcatt gtctttgggg tacatggggt tgaattcaat 1440 gatgatgate ttggccacag ccagggatgg gaagetgeec agtttgtetg ageetgeeeg caccttccag ttgaacacat cggtatgttt cctgaagcag tgggctgccg tgaggaccca 1500 1560 gtgggggtcc aggatgctcc ctccacagac gtgctgtttg tcgtactgga tgctgacctg 1620 ccaaggccaa gaatccacaq aggcctcctc cccaeccacc acacgggggg tcttcaggct 1680 ctccccacaq qcaaqacaqt qcaqqqaqac caqqqaqcct qaqaqacaqq qcccacttqa 1740 gtteegeatg eqaaqeteet qqetqtttte tqtqatttea acaacateca gateetqqte toggccaatc tocacagetc tgaaaqtqqq tttqctqctq taqcccatct qcctacaggc 1800 tgtctcagcg agagettctg taagttgtcg aaacaggcag gaattcctgc caca 1854

<210> 410 <211> 1147 <212> DNA <213> Homo sapiens

<400> 410

ggaccattag tacagtgcgg tggaattege gcattgggat ggtgctggge gtggccatce 60 agaagaggge tgttetetgg eetgtattge gtttgaagaa geetatgeee gggcagacaa 120 ggaggcccct aggccttgcc acaagggctc ctgqtgcagc agcaatcagc tctgcagaga 180 atgocaagot ttoatggcac acaegatgee caageteaaa geetteteea tgagttotge 240 ctacaacgca taccgggctg tgtatgcggt ggcccatggc ctccaccagc tcctgggctg 300 tgcctctgga gcttgttcca ggggccgagt ctacccctgg cagcttttgg agcagatcca 360 caaggtgcat tteettetae acaaggacae tgtggegttt aatgacaaca gagateeeet 420 cagtagetat aacataattg cetgggactg gaatggacec aagtggacet teaeggteet 480

eggtteetee	acatggtctc	cagttcagct	aaacataaat	gagaccaaaa	tccagtggca	540
cggaaaggac	aaccaggtgc	ctaagtctgt	gtgttccagc	gactgtcttg	aagggcacca	600
		atcactgctg				660
		cctgggtaag				720
tgtgtcacct	tcagcctgct	cttcaacttc	gtgtcctgga	tegeettett	caccacggcc	780
agcgtctacg	acggcaagta	cctgcctgcg	gccaacatga	tggctgggct	gagcagcctg	840
agcagcggct	teggtgggta	ttttctgcct	aagtgctacg	tgatcctctg	ccgcccagac	900
ctcaacagca	cagagcactt	ccaggcctcc	attcaggact	acacgaggcg	ctgcggctcc	960
		ggcacggctg				1020
		gggaggtctt				1080
aagcgcctgg	gagagcctag	accaggetee	gggctgccaa	taaagaaaaa	aaatgcgtaa	1140
aaaaaaa						1147

<210> 411 <211> 2234

<212> DNA <213> Homo sapiens

<400> 411

ggtggcacga ggcgccttcc accctaagat gggtcccagc ttccccagcc cgaagcctgg 60 cagcgagcgg ctgtccttcg tctctgccaa gcagagcact gggcaagaca cagaggcaga 120 getecaggae gecaegetgg ceetecaegg geteaeggtg gaggaegagg geaactacae 180 ttgcgagttt gccaccttcc ccaaggggtc cgtccgaggg atgacctggc tcagagtcat 240 agecaagece aagaaceaag etgaggeeca gaaggteaeg tteagecagg accetaegae 300 agtggccctc tgcatctcca aagagggccg cccacctgcc cggatctcct ggctctcatc 360 cctggactgg gaagccaaag agactcaggt gtcagggacc ctggccggaa ctgtcactgt 420 caccagoogo ttcaccttgg tgccctcggg ccgagcagat ggtgtcacgg tcacctgcaa 480 agtggagcat gagagcttcg aggaaccagc cctgatacct gtgaccctct ctgtacgcta 540 ccctcctgaa gtgtccatct ccggctatga tgacaactgg tacctcggcc gtactgatgc 600 caccetgage tgtgaegtee geageaacee agageeeacg ggetatgaet ggageacgae 660 ctcaggcacc ttcccgacct ccgcagtggc ccagggctcc cagctggtca tccacgcagt 720 ggacagtctg ttcaatacca cettcgtctg cacagtcacc aatgccgtgg gcatgggccg 780 egetgageag gteatetttg teegagaaac ceccaacaca geaggegeag gggeeacagg eggeateate gggggeatea tegeogecat cattgetact getgatgete aegggeatee 900 ttatctgccg gcagcagcgg aaggagcaga cgctgcaggg ggcagaggag gacgaagacc tggagggacc tccctcctac aagccaccga ccccaaaagc gaagctggag gcacaggaga 1020 tgecetecca getetteact etgggggeet eggageacag eccaeteaag accecetact 1080 ttgatgetgg egecteatge actgageagg aaatgeeteg ataccatgag etgeceacet 1140 tggaagaacg gtcaggaccc ttgcaccctg gagccacaag cctggggtcc cccatcccgg 1200 tgcctccagg gccacctgct gtggaagacg tttccctgga tctagaggat gaggagggg 1260 aggaggagga agagtatetg gacaagatea accecateta tgatgetetg teetatagea 1320 gcccctctga ttcctaccag ggcaaaggct ttgtcatgtc ccgggccatg tatgtgtgag 1380 ctgccatgcg cctggcgtct cacatctcac ctgttgatcc cttagctttc ttgccaagga 1440 totagtgccc cctgacctet ggccaggcca ctgtcagtta acacatatgc attccatttg 1500 taaatgtcta ccttggtggc tccactatga cccctaaccc atgagcccag agaaattcac 1560 cgtgataatg gaatcctggc aaccttatct catgaggcag gaggtgggga aggtgcttct 1620 geacaacete tgateecaag gacteetete ecagactgtg acettagace atacetetea 1680 ecceccaatg cetegactee eccaaaatea caaagaagae ectagaceta taatttgtet 1740 tcaggtagta aattcccaat aggtctgctg gagtgggcgc tgagggctcc ctgctgctca 1800 gacctgagec etecaggeag eagggteeca ettaceceet ecceaceetg tteeceaaag 1860 gtgggaaaga ggggattccc cagcccaagg cagggttttc ccagcaccct cctgtaagca gaagteteag ggteeagace ettecetgag ecceeacece caccecaatt cetgeetace 1980 aagcaagcag ccccagccta gggtcagaca gggtgagcct catacagact gtgccttgat 2040 ggccccagcc ttgggagaag aatttactgt taacctggaa gactactgaa tcattttacc 2100 cttgcccagt ggaataggac ctaaacatcc cccttccggg gaaagtgggt catctgaatt 2160

2220

gggggtagca attgatactg ttttgtaaac tacattteet acaaaatatg aatttatact

ttgaaactcg tgcc 2234

<210> 412 <211> 2457 <212> DNA <213> Homo sapiens

<400> 412

ggcacgaggc ttcgtgaaga taagaaccat aacatgtatg ttgcaggatg tacagaagtt 60 gaagtgaaat ctactgagga ggcttttgaa gttttctgga gaggccagaa aaagagacgt 120 attqctaata cccatttgaa tcgtgagtcc agccgttccc ataqcgtgtt caacattaaa 180 ttagttcagg ctcccttgga tqcaqatqqa qacaatqtct tacaqqaaaa aqaacaaatc 240 actataagtc agttgtcctt ggtagatett getggaagtg aaagaactaa ceggaccaga 300 gcagaaggga acagattacg tgaagctggt aatattaatc agtcactaat gacgctaaga 360 acatgtatgg atgtcctaag agagaaccaa atgtatggaa ctaacaagat ggttccatat 420 cgagattcaa agttaaccca totgttcaag aactactttg atggggaagg aaaagtgcgg 480 atgategtgt gtgtgaacce caaggetgaa gattatgaag aaaacttgca agtcatgaga 540 tttqcqqaag tgactcaaga agttgaagta gcaagacctg tagacaaggc aatatgtggt 600 ttaacgcctq qqaggagata cagaaaccag cctcgaggtc ccacttqqaa atqaaccatt 660 ggttactgac gtggttttgc agagttttcc acctttgccg tcatgcgaaa ttttggatat 720 caacgatgag cagacacttc caaggctgat tgaagcetta gagaaacgac ataacttacg 780 acaaatgatg attgatgagt ttaacaaaca atctaatgct tttaaagctt tgttacaaga 840 atttgacaat getgttttaa gtaaagaaaa eeacatgcaa gggaaactaa atgaaaagga 900 gaaqatqatc tcaqqacaga aattqqaaat aqaacqactq qaaaaqaaaa acaaaacttt 960 agaatataag attgagattt tagagaaaac aactactatc tatgaggaag ataaacgcaa 1020 tttgcaacag gaacttgaaa ctcagaacca gaaacttcag cgacagtttt ctgacaaacg 1080 cagattagaa gccaggttgc aaggcatggt gacagaaacg acaatgaagt gggagaaaga 1140 atgtgagcgt agagtggcag ccaaacagct ggagatgcag aataaactct gggttaaaga 1200 tgaaaagctg aaacaactga aggctattgt tactgaacct aaaactgaga agccagagag 1260 accetetegg gagegagate gagaaaaagt taeteaaaga tetettete cateacetet 1320 gcctttactc tttcaacctg atcagaacgc accaccaatt cqtctccqac acaqacqatc 1380 acgetetgea ggagacagat gggtagatea taageeegee tetaacatge aaactgaaac 1440 agtcatgcag ccacatgtcc ctcatgccat cacagtatet gttgcaaatg aaaaggcact 1500 agetaagtgt gagaagtaca tgetgaceca ceaggaacta geeteegatg gagagattga 1560 aactaaacta attaaqqqtq atatttataa aacaaqqqqt qqtqqacaat ctqttcaqtt 1620 tactgatatt gagactttaa agcaagaatc accaaatggt agtcgaaaac gaagatcttc 1680 cacaqtaqca cctqcccaac caqatqqtqc aqaqtctqaa tqqaccqatq taqaaacaaq 1740 gtgttctgtg gctgtggaga tgagagcagg atcccagctg ggacctggat atcagcatca 1800 cgcacaaccc aagcgcaaaa agccatgaac tgacagtccc agtactgaaa gaacattttc 1860 atttqtqtqq atqatttctc gaaagccatg ccaqaaqcag tcttccaqqt catcttqtaq 1920 aactccaqct ttqttgaaaa tcacggacct caqctacatc atacactgac ccaqaqcaaa 1980 gettteeeta tggtteeaaa gacaactagt atteaacaaa cettgtatag tgtatgtttt 2040 qccatattta atattaataq caqaqqaaqa ctcctttttt catcactqta tqaatttttt 2100 ataatgtttt tttaaaatat atttcatgta tacttataaa ctaattcaca caagtgtttg 2160 tettagatga ttaaggaaga etatatetag ateatgtetg attittatt gtgaettete 2220 cagocotqqt otqaatttot taaggtttta taaacaaatq otqotattta ttaqotqcaa 2280 gaatgcactt tagaactatt tgacaattca gactttcaaa ataaagatgt aaatgactgg 2340 ccaataataa ccattttagg aaggtgtttt gaattetgta tgtatatatt cactttetga 2400 catttagata tgccaaaaga attaaaatca aaagcactaa gaaatacaaa aaaaaaa 2457

<210> 413 <211> 1042

<212> DNA <213> Homo sapiens

<400> 413 ecetttteat ectecagtgt etecteaaaa ggateagate eetttggaac ettagateee 60 ttoggaagtg ggtoottcaa tagtgotgaa ggotttgoog acttoagcoa gatgtocaag 120 gtaaaagtac acctgtaagc cagettggtt ccgcagactt tcccgaggcc cccgatccat 180 tocaqcoact oggggctgac agoggcgaco ogttecaaag taaaaagggg tttggggaco 240 cotttactgc aaaaqaccca tttgtcccct cctctgcagc taaaccttct aaggcctctg 300 cotegggett tgeagactte acetetgtaa gttgagteet cegeeteegg gecaceceae 360 tecetteege ttgeagette cetgggattt ttgteteett ttaaaggeaa aceteecage 420 ttetttagee tettggtace teacactete tgteeetege gttatttatt etacactgee 480 acttotgtaa gaaaaacagt ttotcaataa aaaaaaaaaa agoogoagtt tqqatqotot 540 atcataaggg cacgttttct tocagcaggg aggcgggacc tatctgtcct toacggtaga 600 ttcattgtat tatttctgac gcaccgaggc tgttgggttc actggttttt ggaagccaaa 660 atgtcaaaca cttccgaagt atgaaaagaa gattgcgaaa gttacattag ggttctgctg 720 tececaaaaa gecetttgtg cacaagttet cacagteeeg ceceatgeat tttgtgecae 780 acgtgcaaat tgaaggactt caggcagatc gcgccaggga agagcaattt gaagtttttt 840 tttttttaaa gettttaaat teeaceeece aeeteeaaga aaaaaaaaaa teeaggttaa 900 aacagccctt ttgaaagcca aaccaaaaag agctccaaaa acctgtggag caaagttaag 960 ggccttttcg aaagcaaatc tgggaattac aaaagcctgc cttttttttt ttttqqqqqa 1020 aaaaaaattc caaattctaa cc 1042

<210> 414 <211> 1849

<212> DNA

<213> Homo sapiens

<400> 414

atgtegetea tggtegteag catggegtgt gttgggttgt tettggteea gagggeeggt 60 ccacacatgg gtggtcagga caaaccette etgtetgeet ggeecagege tgtggtgeet 120 cgaggaggac acgtgactct tcggtgtcac tatcgtcata ggtttaacaa tttcatgcta 180 tacaaagaag acagaatcca cattcccatc ttccatggca gaatattcca qqaqaqcttc 240 aacatgagec etgtgaccac ageacatgca gggaactaca catgtegggg ttcacaccca 300 cactececca etgggtggte ggeacceage aacceegtgg tgateatggt cacaggaaac 360 cacagaaaac cttccctcct ggctcaccca ggtcccctgg tgaaatcagg agagagagtc 420 atcotgcaat gttggtcaga tatcatgttt gaacacttet ttetgeacaa agaggggate 480 tetaaggace ceteaegeet egttggacag atceatgatg gggteteeaa ggecaactte 540 tecateggte ceatgatgea agacettgea gggacetaea gatgetaegg ttetgttaet 600 cactocccct atcagttgtc agotcccagt gaccototgg acatogtcat cacaggtcta 660 tatgagaaac cttctctctc agcccagccg ggccccacgg ttctggcagg agagagcgtg 720 accettgacet geageteeeg gageteetat gacatgace atetateeag ggaggggag 780 geccatgaac gtaggttete tgcagggeec aaggtcaacg gaacatteea ggecgaettt 840 cototgggcc otgccaccca oggaggaacc tacagatgct toggctettt ocgtgactet 900 ccatacgagt ggtcaaactc gagtgaccca ctgcttgttt ctgtcacagg aaacccttca 960 aatagttggc cttcacccac tgaaccaagc tecgaaaccg gtaaccccaq acacctgcat 1020 gttetgattg ggaecteagt ggteateate etetteatee teeteetett ettteteett 1080 catcgctggt gctccaacaa taaaaaatgc tgcggtaatg gaccaagagt ctgcaggaaa cagaacagcg aatagcgagg actctgatga acaagaccct caggaggtga catacacaca 1200 gttgaatcac tgcgttttca cacagagaaa aatcactcgc ccttctcaga ggcccaagac 1260 acceccaaca gatatcateg tgtacaegga acttecaaat getgagteea gateeaaagt 1320 tgtctcctgc ccatgagcac cacagtcagg ccttgagggc gtcttctagg gagacaacag 1380

```
contents asserted acceptance and acceptance acceptance and acceptance a
                                                                                                                                                                                                                                                                                                                        1440
agtetgeate ttagggeate gatetteete acaccacaaa tetgaatgtg ceteteaett
                                                                                                                                                                                                                                                                                                                        1500
gottacaaat qtotaaqqto cocactqcot qotqqaqaaa aaacacacto otttqcttaq
                                                                                                                                                                                                                                                                                                                        1560
cocacagtte tecattteac ttgacccetg cocacetete caacetaact ggettactte
                                                                                                                                                                                                                                                                                                                        1620
ctagtctact tgaggctgca atcacactga ggaactcaca attccaaaca tacaagaggc
                                                                                                                                                                                                                                                                                                                         1680
tecetettaa eggageaett agagaggtgt tettegaget teceteatee tettegaget
                                                                                                                                                                                                                                                                                                                        1740
cccctcagac tagetttcag tettetgtca gcagtaaaac ttatatattt tttaaaataa
                                                                                                                                                                                                                                                                                                                        1800
cttcaatgta gttttccatc cttcaaataa acatgtctgc ccccatggt
                                                                                                                                                                                                                                                                                                                        1849
```

<210> 415 <211> 2555 <212> DNA

<213> Homo sapiens

<400> 415

atqtcqttac gtqtacacac tctgcccacc ctgcttggag ccgtcgtcag accgggctgc 60 agggagetge tgtgtttget gatgateaca gtgaetgtgg gecetggtge etetggggtg 120 tgccccaccg cttgcatctg tgccactgac atcgtcagct gcaccaacaa aaacctgtcc 180 aaggtgcctg ggaacctttt cagactgatt aagagactgg acctgagtta taacagaatt 240 gggcttctgg attctgagtg gattccagta tcgtttgcaa agctgaacac cctaattctt 300 cgtcataaca acatcaccag catttccacg ggcagttttt ccacaactcc aaatttgaag 360 tgtcttgact tatcgtccaa taagctgaag accggtgaaa aatgctgtat tccaagagtt 420 gaaggttetg gaagtgette tgetttacaa caatcacata teetateteg atcetteage 480 gtttggaggg ctctcccagt tgcagaaact ctacttaagt ggaaattttc tcacacagtt 540 teegatggat ttgtatgttg gaaggtteaa getggeagaa etgatgtttt tagatgttte 600 ttataaccga attectteca tgecaatgea ceacataaat ttagtgecag gaaaacaget 660 gagaggcate tacetteatq gaaacceatt tqtetqtqae tqqtteeetq qteteettqe 720 tggtcttttg gtatcgtagg cactttaget cagtgatgga ttttaagaac gattacacet 780 gtcgcctgtg gtctgactcc aggcactcgc gtcaggtact tctgctccag gatagcttta 840 tgaattgete tgacagcate atcaatggtt cetttegtge gettggettt atteatgagg 900 ctcaggtcgg ggaaagactg atggtccact gtgacagcaa gacaggtaat gcaaatacgg 960 atttcatctg ggtgggtcca gataacagac tgctagagcc ggataaagag atggaaaact 1020 tttacgtgtt tcacaatgga agtctggtta tagaaagccc tcgttttgag gatgctggag 1080 tgtattcttg tatcgcaatg aataagcaac gcctgttaaa tgaaactgtg gacgtcacaa 1140 taaatgtgag caatttcact gtaagcagat cccatgctca tgaggcattt aacacagctt 1200 ttaccactet tgetgettge gtggccagta tegttttggt acttttgtae etetatetga 1260 ctccatgccc ctgcaagtgt aaaaccaaga gacagaaaaa tatgctacac caaagcaatg 1320 cccattcatc gattctcagt cctqqccccq ctaqtqatqc ctccqctqat qaacqqaaqq 1380 caggtgcagg taaaagagtg gtgtttttgg aacccctgaa ggatactgca gcagggcaga 1440 acqqqaaaqt caqqctcttt cccaqcqaqq caqtqataqc tqaqqqcatc ctaaaqtcca 1500 cgagggggaa atctgactca gattcagtca attcagtgtt ttctgacaca ccttttgtog egtecaetta attigtgeet atatitgtat gatgteataa titaatetgt teatatitaa ctttgtgtgt ggtctgcaaa ataaacagca ggacagaaat tgtqttqttt tqttctttqa 1680 aatacaacca aattetetta aaatgattgg taggaaatga ggtaaagtae tteagtteet 1740 caatgtgcca gagaaagatg gggttgtttt ccaaagttta agttctagat cacaatatct 1800 tagettttag eactattggt aattteagag taggeecaaa ggtgatatga eteceattgt 1860 ccctttattt aggatattga aagaaaaaat aaactttatg tattagtgtc ctttaaaaat 1920 agactttgct aacttactag taccagagtt attttaaaga aaaacactag tgtccaattt 1980 catttttaaa agatgtagaa agaagaatca agcatcaatt aattataaag cctaaagcaa 2040 agttagattt gggggttatt cagccaaaat taccqtttta gaccagaatg aatagactac 2100 actgataaaa tgtactggat aatgccacat cctatatggt gttatagaaa tagtgcaagg 2160 aaagtacatt tgtttgcctg tcttttcatt ttgtacattc ttcccattct gtattcttgt 2220 acaaaagatc tcattgaaaa tttaaagtca tcataatttg ttgccataaa tatgtaagtg 2280 teaataccaa aatgtetgag taacttetta aatceetgtt etageaaact aatattggtt 2340 catgtgcttg tgtatatgta aatettaaat tatgtgaact attaaataga cectactgta 2400 ctgtgctttg gacatttgaa ttaatgtaaa tatatgtaat ctgtgacttt gatattttgt 2460

<210> 416 <211> 2950 <212> DNA <213> Homo sapiens

<400> 416 tgcaagtgac ttcattcgga gcctggacca ctgtggatac ctatctctgg agggtgtgtt 60 ctoccacaag tttgatttog aactgoagga tgtgtocago gtgaatgagg atgtoctgot 120 gacaactggg ctcctctgta aatatacagc tcaaaggttc aagccaaagt ataaattctt 180 tcacaagtca ttccaggagt acacagcagg acgaagactc agcagtttat tgacgtctca 240 tgagccagag gaggtgacca aggggaatgg ttacttgcag aaaatggttt ccatttegga 300 cattacatcc acttatagca gcctgctccg gtacacctgt gggtcatctg tggaagccac 360 cagggetgtt atgaageace tegeageagt gtateaacae ggetgeette teggaettte 420 categocaag aggeetetet ggagacagga atetttgcaa agtgtgaaaa acaccaetga 480 gcaagaaatt ctgaaagcca taaacatcaa ttcctttgta gagtgtggca tccatttata 540 tcaagagagt acatccaaat cagccctgag ccaagaattt gaagctttct ttcaaggtaa 600 aagettatat atcaactcag ggaacatccc cgattactta tttgacttct ttgaacattt 660 gcccaattgt gcaagtgctc tggacttcat taaactgggc ttttatgggg gagctatggc 720 ttcatgggaa aaggctgcag aagacacagg tggaatccac atggaagagg ccccagaaac 780 ctacattocc agcagggctg tatctttgtt cttcaactgg aagcaggaat tcaggactct 840 ggaggtcaca ctccgggatt tcagcaagtt gaataagcaa gatatcagat atctggggaa 900 aatattcagc totgccacaa gcctcaggct gcaaataaag agatgtgctg gtgtggctgg 960 aageeteagt ttggteetea geacetgtaa gaacatttat teteteatgg tggaageeag 1020 teceetcace atagaagatg agaggeacat cacatetgta acaaacetga aaacettgag 1080 tattcatgac ctacagaatc aacggctgcc gggtggtctg actgacagct tgggtaactt 1140 gaagaacctt acaaagctca taatggataa cataaagatg aatgaagaag atgctataaa 1200 actagetgaa ggeetgaaaa acetgaagaa gatgtgttta ttteatttga eccaettgte 1260 tgacattgga gagggaatgg attacatagt caagtctctg tcaagtgaac cctgtgacct 1320 tgaagaaatt caattagtot cotgotgott gtotgoaaat goagtgaaaa tootagotoa 1380 gaatcttcac aatttqqtca aactqaqcat tcttqattta tcaqaaaatt acctqqaaaa 1440 agatggaaat gaagctette atgaactgat cgacaggatg aacgtgctag aacagcteac 1500 cqcactqatq ctqccctqqq qctqtqacqt qcaaqqcaqc ctqaqcaqcc tqttqaaaca 1560 tttqqaqqaq qtcccacaac tcqtcaagct tqqqttqaaa aactqqaqac tcacagatac 1620 agagattaga attttaggtg cattttttgg aaagaaccct ctgaaaaact tccagcagtt 1680 gaatttggcg ggaaatcgtg tgagcagtga tggatggctt gccttcatgg gtgtatttga 1740 gaatcttaag caattagtgt tttttgactt tagtactaaa gaatttctac ctgatccagc 1800 attagtcaga aaacttagcc aagtgttatc caagttaact tttctqcaag aagctaggct 1860 tgttgggtgg caatttgatg atgatgatct cagtgttatt acaggtgctt ttaaactagt 1920 aactgottaa ataaagtgta otogaagooa gtaagtgoto tgggacotca ttattttaag 1980 cctggtagtt aaaaaaaatc ttgcaaaagg atgccaaaga agataaggac gtggaaagaa 2040 gtttaatttg atgattaaaa acatgcaaca gttttgtgtc ttagctctcc tactaggatt 2100 ateggegeet tgaaggaatt eteatteate tttgtgttae etttggtetg ggteacacea 2160 actggtatac tgaatgcata ttaacttagt atagtgcctg gcatgtaaga gattctcaac 2220 aatattotoa ataaatatto gotgaatatg agataaatta ttaatagota otgaataaag 2280 aaagattatt taaaaccaga gaggaaactc catatatgtt ctttaatcca aacagtttaa 2340 ttcaagcaat ctggaatata aaaagcactt tctgatatta gaaggagatc agactcccaa 2400 aaaagatcag cattotttag toaagcaaaa ottggaagtt tacaaacago taaatcagaa 2460 gettgaaatt caggteetet ceagtacetg etacattata tgtaatteea aacatgaett 2520 cagagattaa agaagaaagg gaaqatgttt cccattcttt tqtaccctat ataaactaaq 2580 ggtaccctgc cctaatcttt tttccaacac ttccccaaat aacccttcct tacaaaqaaa 2640 gaagtotaag agaactotot catotaaata tatttaagta gaggcaagco tgaaaaaaac 2700 acaaaaacct aaatggtgtt aggctgtggt tcacctattc tcatggcacc tcaaattaat 2760

ggcttgggtg ttggtgtagg taacqcttqq cctqtatqtt qaggtagtca ctagataaaa

WO 01/53455	;				PCT/US00	/35017
ttotgggoad totgaagetg gaaagetcag	attattttac	tagcaattgg agatcaacta	gcatacattc attaattcct	tacagattta ctccctaact	gccataacgt ttacagatga	2880 2940 2950
<220> <221> <222>	850	re)				
gatacacaga acacgtgtga ataagaaag catgctgcta aagaaaaagt ctatgacttg aggtggggac tttcccacag ctgcaactac actaaggcat gcatcgtct ttttatnitt	417 aatccatgaa atgotttcca gagatgcaga aaaaaagcaa cttttaacag gcctctatct tgactgtttt agaaaaggga gagaaaaggt tctgtgaggg aaataatgtt agagacagca ggggtccgcg cgaattagat	ttgaatcatt aaaaggtccc agtttaagcc agaagtctga gccaagcgca tggttcagaa cggcaggct tctgcaggac acacaactca ttcaagccag atcattcta cacgtcagcac	tggtcataat ttctatgtac ttctagtcat gttttaaaat tgatcttatg caatgctaga gggtggctgg gatgagttca ggtttgtgag taataacaag gagcatggc tagcatggct atntcaaann	ccgggtacaa accttgccaa ttgtaaaatg tcaaacgttc agcttcagat tcaacatgca taatgtttga cctgtgacct tccccggaac agcctgttag ctgcattggg	agcaaattta atacaagaac ttgccaaacc ttttcttaca agaaaagtgg agttgtatgg tccctctgga cttccgattc ttctgatgat tcccaattat atctgggncg aggggtcccg	600 1200 2400 3600 4800 5400 6000 7200 7800 8400 850
<210> <211> <212> <213>	360	ns				
<400> gagataaccc	acattgttgg	agagacaget	gcctttctat	gcccaggct	gaggetgaga	60

```
<210> 419
<211> 949
<212> DNA
<213> Homo sapiens
<220h
<221> misc feature
<222> (1) ... (949)
<223> n = a,t,c or q
```

<400> 419 atttqatqqt aatttqctqq qattacaqqc qtqaqccacc acacccqqcc qqaaqatatt 60 aattottata tototatott caacaqatac toaatotcaq otgaaqcaaa otgocttcat 120 cattgtagca aatcctacat ttaaatgaaa tcagataagt actggcatat aatcaaaatt 180 tattttttat gttgattccc aatcaatgat ttttttttt caaacaccaa caagacataa 240 agtacttatt atggaatttt gtecatgtgg gagtttatac actgttttag aagaacette 300 taatgeetat ggactaccag aatetgaatt ettaattgtt ttgegagatg tggtgggtgg 360 aatgaatcat ctacgagaga atggtatagt gcaccgtgat atcaagccag gaaatatcat 420 gcgtgttata ggggaagatg gacagtctgt gtacaaactc acagattttg gtgcagctag 480 agaattagaa gatgatgage agtttgttte tetgtatgge acagaagaat atttgcacce 540 tgatatgtat gagagagcag tgctaagaaa agatcatcaa gaagaaatat ggagcaacaa 600 gttgatcttt ggaggcattg gggtaacatt ttaccaaggc aagcctactg gatcaactgg 660 ccatttaana cccctttgaa ggggcctccg tanggaataa agnaagtgat ggtataaaaa 720 taattacagg gaaaggcett etgggtgeaa tateetggag tacagaaaaag caagaaaaat 780 gggaccaatt tgactgggag tgggaagaca tgcctgtttc ctgcagtcct tcctcggggg 840 tectcagggt tectaactta ecceptgtte ttgcaaaaca teettgaaag cagatcaagg 900 aaaaaqtqtt qqqqqttttq accaaqtttt ttqcaaqaaa actaqtqqq 949

<210> 420 <211> 986 <212> DNA <213> Homo sapiens

```
ttttttttt ttcttcagca ttgtgtttta ctttttggga gagaggctag gaggaggaag
                                                                     60
qqqtqaaaac aqcatctcac tqqaqtctca aaaqtqtatq aatcttctqq tagtqcaaqq
                                                                     120
atgggataag atggccaggg aagtcagatg gaaaatcccc aagattcttt ttgctactga
                                                                     180
tttctataat taaaatatga catatgtaag ggactagtgc atgatattca ataaatgtca
                                                                     240
gttgtctttc ctaactaggt tcctcacagg ctaggttatg cctagatatc atcatcctcc
                                                                     300
tttcagggaa tgaagctcac ctagaaaact agggaactaa aagtgcaata tggtttgggt
                                                                     360
aatgcagttq gttagctqtc tecccatect eccaactcac tattccaqqq aqqqqctqaa
                                                                     420
aacagaagtg gctcccctga agtctagtta gcatgtcatg acagagtcca catgaagggc
                                                                     480
tgtgggctgc aactttctag tgcacagtcc tctctttttg gcgatgataa ttgtagggaa
                                                                     540
agaagegcac acgcatgetg atttcacgag etgtetteag gateteaaca geettgetgt
                                                                     600
geteaatate ttggaaatee acateattea cagetagaae ttggteeeet teetgeagte
                                                                     660
ctgetetatg tgeatcagag teaggaatca cettqqaqat qaaqatqeet aqetqqgaqq
                                                                     720
cettteetee teggatgtta aateecaact qageteeagg aggettette agtgtgatgg
                                                                     780
ttcggggcag aaactgggtc aactcattgt tgtagtccgg gtggtgtacc ctctcatgag
gaqqaateca tqctqqaqqa ttctcataqq caqqcaaqaa aaccaccqqq taqtcatcat
                                                                     900
aaqqaatccq qctqtccatc tcqqqcaaqq cccaqtqqqc aqtccacagc qacctcaqac
                                                                     960
tecgeteaca egaaategte gaeceg
                                                                     986
```

```
<210> 421
<211> 1209
<212> DNA
<213> Homo sapiens
```

<400> 421 ggcacgagca ggtctctgcc cttcatagac gcataaaggc tatcgtagag gtggctgcaa 60 tgtgtggagt caacatcatc tgtttccagg aagcatggac tatgcccttt gccttctgta 120 cgagagagaa gcttccttgg acagaatttg ctgagtcagc agaggatggg cccaccacca 180 gattotgtca gaagetggcg aagaaccatg acatggtggt ggtgtctccc atcctggaac 240 gagacagoga gcatggggat gttttgtgga atacagoogt ggtgatetee aatteeggag 300 cagtcctggg aaagaccagg aaaaaccaca tccccagagt gggtgatttc aacgagtcaa 360 cttactacat ggagggaaac ctgggccacc ccgtgttcca gacgcagttc ggaaggatcg 420 eggtgaacat ttgctacggg eggcaccacc ceetcaactg gettatgtac agcateaacg 480 gggctgagat catcttcaac ccctcggcca cgataggagc actcagcgag tccctgtggc 540 ccatcgaggc cagaaacgca gccattgcca atcactgctt cacctgcgcc atcaatcgag 600 tgggcaccga gcacttcccg aacgagttta cctcgggaga tggaaagaaa gctcaccagg 660 actitiggeta ctititatgge tegagetatg tggcagecee tgacageage eggacteetg 720 ggctgtcccg tagccgggat ggactgctag ttgctaaget cgacctaaac ctctgccage 780 aggtgaatga tgtctggaac ttcaagatga cgggcaggta tqagatgtac qcacqqqaqc 840 togoogaago tgtoaagtoo aactacagoo coaccatogt gaaagagtag coggottoag tgcctgcctt ggggtgagga agacacctct gccccagtgg attagcaagt gtggcaggct taacatgtcc aggttctccc caataacatt gtccaggtgg ttttaaaatt cccaggcagg 1020 gggagagtgg catggggagt gacttottaa tgggtaaggg gotgottact totggggtat 1080 tggaaatgtt tggggactag gtagaggtga atgtactaaa tgccactgaa tttgtatact 1140 tcagaatgtt tgttatgtaa attttacctc aactaaaaaa aaaaaatgcc caggtaaaaa 1200 aaaaaaaa 1209

<210> 422 <211> 5214 <212> DNA <213> Homo sapiens

<400> 422 60 aaaagcaggt ctgtagtttg taaccatgac aattaaaatc tgtgctaatg cacggcagtc 120 tataacaatt ctacaagcca atcagacagt acgtgacatt tcaatgagta aaaaagagca 180 taaaactgta tgtgtaagaa caaaatgtta aaaggcctac cacaataata aaaaaccgtc 240 aattacatca tcacattaaa ataagccaga tgtacaaaag tctgagacag agaagacaaa 300 aggacaacac aagatatttg ttgaaaaatg tttgtgctct ttgggcactt aattaaacat 360 tgcaaaatca acatcatctt cttcttcatc agactctgca aaatatttta cttctttcct 420 agecegaceg gttegtggca gagaaggtgg etcagtaggg aagtetgagg ggaagatgte 480 cacatotgaa tootgatcaa aagatgtott ottoggttto ttgottgttg ttttggatgt 540 tttoctgcca gggttataat cgccttcatt ttcagagcca gatgctttcc ttttctttgc 600 ccctcggcct ttaccttttg gtgttgtagt cttctttgga atgccaaatt ctqaatccga 660 gtcagagttt acagcctcta ctactttctt ctgttttggg gctctcttgg gcttagggac 720 tgtatctgaa gacggttttc cctttttagc agctaccgtt ttacttggaa ctttatctgt 780 ctgtttcaga ccaaatgatg gtgaaaaaac aqaaqcagaa tcttcttcat tactgtcaaa 840

tttagctgaa	tcatcttctg	acttctgaga	atatgaagga	aatgagaaga	gatttccaaa	900
	tttttgtcat					960
	tcatctttat					1020
	gatgctttaa					1080
	tcatcctctt					1140
	agcaaagaat					1200
	gattcatcat					1260
	gatgtaggtg					1320
	cctttattta					1380
	ccactgaatt					1440
	ttcttcagca ctgccataag					1500 1560
	actttacctt					1620
	tccactttat					1680
	gattttcttt					1740
	tcaacttttt					1800
	cctgaaggag					1860
	tetgetgeet					1920
	tggactaaca					1980
	atcttctcta					-2040
	cccacaagcc					2100
	agaatgtctt					2160
	gaattacaag					2220
	tgtgctagtt					2280
	tctttataat					2340
	acctgttctt					2400
	tttctgtcca					2460
	atcgtgcctt					2520
	attegtetga					2580
acaagcccat	ccagtaccaa	tgccctcagc	accatttatt	aaaaccatgg	gaattatagg	2640
aatataccac	tcaggctcta	cacgttgatt	atcatcataa	aggaacttaa	ggaggttgtc	2700
atccacagca	ggaaaaagta	gccttgctaa	agtgcttaac	attgtgaaaa	tataacgagg	2760
	tctttgccac					2820
	ttacttccca					2880
	tgatgataag					2940
	ttatcattcc					3000
	acaagagatg					3060
	atgaaatcat					3120
	ccatgtagcc					3180
	tcaatcttct					3240
	ctaaacaaga					3300
	ctagtaccca					3360
	ttccattcgt					3420 3480
	tttacaatag tgatggatga					3540
	ataatcataa					3600
	ttatattgta					3660
	ttatgagaag					3720
	tctcgtccaa					3780
	aatatcagtg					3840
	ggaatacctt					3900
	gccttaaatt					3960
	aaaaattttt					4020
	tccttagtct					4080
	tggtttttta					4140
cttaactact	tcaatcagtt	taccaacaac	ttgatctacc	acataatcca	cataccatcc	4200
	gttgcaatac					4260
tgtgagacaa	acatcccatc	tttcatttqc	aaqctcatga	ataactttca	qqqccacccc	4320
agtttcatcc	aatttgtctt	tcacataaaq	atctacataa	ctgcgaaatc	catttacagg	4380
	ccattaaaca					4440
	atgagggcca					4500
atctggttgg	aatgttatgc	atgtgtaatc	ttcaccatca	aaatgtttaa	ttttggette	4560
agaagtette	atcatattat	tcatccatgt	ctgcttaaaa	ctgtgtttgt	attetttgea	4620
	actgtaaact					4680

acgaccacct	gtaactttt	tctcatcatc	atcatagtta	ctggatgtta	aaagctgtcc	4740
aaaaattaaa	gcaggaacat	aaactttctc	caccttgtgt	tctactactg	gaatgccttt	4800
cccattattc	caaatgctta	taatgttaga	ttcaggatca	atagaaactt	taatacaagt	4860
catgttctta	tccctctgtt	tattgtcagc	agcattaacc	aaaatttcat	caaagatctt	4920
gtataaacct	ggcacaaagg	taacctccct	gcaattcatt	cctacatctt	catcatacac	4980
ccacatgaac	tgcgtcaatg	gctccactga	cccaatatat	gtatcaggac	gaagaagaat	5040
gtgttcaagt	tgtgtcttct	tctgatacac	tctctcaaca	gacaacttct	ttgaagaatc	5100
atttttgttg	gcagtttctg	actcttcttt	ttttgcagca	ttgttcaccc	aggtcagtgc	5160
cccgttgccg	ccgcccacgc	eggeteeege	gccgcagcca	cccgacttgg	ccat	5214

<210> 423 <211> 474

<212> DNA

<213> Homo sapiens

<400> 423

aagggttgtc tqqctgcctc cttcaactgc atcttcctgt atactgggga actgtatccc 60 acaatgatcc ggtgagtgga agectaatgg gagaatgaca gcettttect ggggaaagac 120 attottetgt geacaggtea gaccecagag etaaatcaag tacateccag cecaaaggee 180 cctcccaaca ctcatcattq caaqqcacat aqtaqccact qaqtacacac ctcatqqcct 240 agctaacaca ggtgttactg tcctctaagc ccttacggga ccctagaaga tctcaaaagt 300 agccaccaac tggggcaggg taaggaacca agaagacaca tctcagagac aacaaatcga 360 agtetteett taateteeaa aacacaaatt agaagetgee accacateta cattecatet 420 ataaaccaag tgatatatct gaaagcaaag gccacaaaca tgaaagcaat ttcc 474

<210> 424 <211> 1453

<212> DNA <213> Homo sapiens

<400> 424

tttaaqttqa qaactttcac cttttcattt aaaaqqaaqc actttqtqqc ttctctttqq 60 catatocqua toaccaqcat catcactact cotqctctct qqqqccactq ttaaqcaaaq 120 tgaggactgc ttggtcacag gcactgtgaa tgctgggata gttgatctga tcaccaagac 180 ggctactaag tcactagcag ggtgggtggc gtatacagcg tggatgtgct ggaccaaggg 240 atgactcaca tecceggeeg getggageeg gacagegaga gatttcatca egetactcag 300 aagggcacac catttgagac ttaaaattct ttatttctgg aattttccat ttaatatttt 360 tqaactgcaq ttgactgcaq qtaacaaact qtqqaaaqcq aaaccataqa tacqagcggg 420 ctactgcgtt caaaaggctc ttcaactgtt gtggatcctc tgatgttctc ggagatggtt 480 taggtggtta catgccttcc cgcactcctt acattcgtag gatttcgccc cactgtgcgt 540 tttetgatgt tgtgtaaget gatggeegtg actaaagete tteccacatt etgtacacee 600 atagggtttc accccggtat gaattctctc atgtttcacg aggctcgatc cataaatgaa 660 ageetteeca cacteettae atttataegg ggtttegeet gtgtggatte tetegtgetg 720 agtgaggtga tagccacaat tgaaggcett cecacattet gtgcacttgt acggettete 780 gecegtatgt atcetetegt gettaacgag getegaacce cagegaaagg cetteccaca 840 ctccttacat tcgtgaggct tctcaccggt gtggatcttc tgatgctgag taaggtaatt 900 gactegagta aaggeettee cacattettg acatteatag ggttteteac etgtgtgaat 960 tettttatge tgaatgagge ttgaaccaca aataaaagee tteecacagt etttacaete 1020

gtaaggcttc	tccccactat	gaattctctt	gtgctgaata	agtttataca	cacggctaaa	1080
ggtettecca	cagtetttge	attcgtagtc	tttctcccca	gtgtggaatc	totggtgotg	1140
agtgagetea	tcaccacgcc	gaaaggcctt	tccacagtct	ttacattcat	agggtttttc	1200
accagtatga	atcctcttat	gaataacgag	gcttgagccc	catcgaaaag	ccttcccaca	1260
gtctttacat	tegtaggget	tctccccagt	atgaatttt	tgatgttgag	taagctgatt	1320
gccccaacgg	aaggeettet	tacattcttt	acattcataa	ggtttctcac	cagtatggat	1380
tttctgatgg	tgactaagtt	gatagccacg	actaaaggcc	ttcccacagt	ccttacattc	1440
aaaggaattc	tcc					1453

<210> 425 <211> 1131 <212> DNA <213> Homo sapiens

<400> 425 gtttccctca tgattttatt gtctcctggg gaccctgctt tgggcggtct ggatgtctgc cttgggccta gtttgaggcg ccccgaaggt ggagccatct tggtctcgta atttgctctt 120 ccctgcccc caagagggaa gccagagcta gcggggccag cactgctcag gaggcaagqt 180 ggoctacetg tegcacacec ggaggaggaa atcattgace aggetetegt geeggetgea 240 gatgettete ttggaaggea etettgagee agteeteaat getgeacace tgeacgegge 300 tggagtgcca gcagatggag aggctgcgga gtgccqqqcc caqqaqqaaq ttqtccttct 360 ggagttcagt gagggaacgg aagtgcagca qqqaccaqaq tqcqqqqtcc tcaaacacqt 420 cgtggagctg ggagcaggtc ctggcaaggc tcttcctgct gtccttgtct aggaaggaga 480 agaggtgcag caggcactcc cggttgagct gggttatgtg catggtgagc agtggccaca 540 tgtcacttca toctggccca ggtactgcag ctccaaatcg tggggattct gtaagagett gctacctgtt gactgaggag gcccacgagt tgagaagaac tagcaagagt ggtacaaaac 660 tgcaggtcat tgggctggcc accaggtatt cccacccacc agaagctggc tgttgtactc 720 acceggaace atggtgcace accacagegg egaggtcata caggeagete teegggccae 780 tgttctcagg ctacagaaca aggaagaagg agcagtggtc aatgacatca gtatctcgat 840 gacctctacc ctctccatgt gatgacaatc ttactgaaga gccatttttt caccatgcta 900 aaaaggccag ttqqqtccag cagctttgcc tctctaccct tttatcacca aagtatactq 960 ctgagaaaga atcaaatgaa aagaaaaaag actcaacaag acctcactca tattaactgg 1020 actotacaag cagtgagcat ccagacotgo atttggttac aaaagaagco ttcaagctat 1080 tttcatcagc ttcctaatca agttaaaaaa taaaccacaa aactgagaaa a 1131

<210> 426
<211> 551
<212> DNA
<213> Homo sapiens
<220>
<221> misc_feature
<222> (1) ... (551)
<223> n = a,t,c or g

<400> 426

gettigggetig teetetgatig ecatigtigte ageecagaea ggeagtigtiga teagggetee tiggeagaggg tetettigaga eacageeact geecetigeti ggtiggtegtig acttigggaeg i

```
cagectgeet gtgactggag etgggggtga egggtaagat gagtggagat gttgggccag
                                                                    180
tggggcctga ttcccagact ggaccaaacc ccaggggctg tcctccaatc cggaccatct
                                                                    240
tecagagete teeggatgeg ettgtgaaca geaagttaet aggaaacete tgetgegtet
                                                                    300
gcacgtccat caccagggag atgtagccct cgatgaggga gaaggagaag aageggatgt
                                                                    360
ggccqcaqtc atccccaqtq gccatqqqqt ccttcactcc attggagtag aacatgacat
                                                                    420
ccatgaggag totggcaaca gcaggcagcg totcagggtc caggctogtg acacagaacc
                                                                    480
tgttgctcgg gctggccgaa ttccaccacn tggactaagg tctactatna ggggcctcaa
                                                                    540
ttqqacqtqc c
                                                                    551
```

<210> 427 <211> 1579

<212> DNA <213> Homo sapiens

<400> 427

aaggggetet gataggteac acagtgeeac ettgtgtget ggaceatate tggagggaga 120 actgagtgag ggggcacagg ggattgtctc caqqtqqqqc qaqcaqqqqa aqqaaaataq 180 tggccacttt tacattggtt tgggtagtaa ttattgattc aggaagcaaa tacaaaatcc 240 tgaatgaaat gacttggaaa aagtaaatag aatcaagatc ccaagaggag ctgaagataa 300 ataaatggga gcaggatgtg ggggaatggt cggtaagtga gaaatgctaa aatgatagaa 360 taaagcttaa ggattgttgg aggtagagca ggaactgtgt actgcatagt tcccaaatgc 420 cctggtgttc caatggggga tggaaactaa aacactggcc aggttggatt tcatactgta 480 gtcctgccat ttttcttcct agagcagaga taaaagttgg ccctgggcga tagctcattc 540 tetetgaaag getgetagtt aggeecagee tgteaccetg gateatgagt gtegtgtgta 600 ttgggactta cggcaggggg ctgaggettg cagatgggca agtggtgaga ggccccactg 660 acctcagtct gtttctcact ggagcgcagg tttgggagca gcagcaacac cacatccttc 720 ggcacqctcg cgagtcagaa tgcccccact ttcggatcac tgtcccaaca gacttctggt 780 tttgggaccc agagtagcgg attetetggt tttggatcag gcacaggagg gttcagettt 840 gggtcaaata actcgtaagt atcccccttt ttgagtctca ccttaattaa aagcattaaa 900 taaggttgga agtgtgtgga tottgotgga titgtgcatt ticttitogt titttcctgt 960 ttttagagtt tgtcctggaa gtgtgggggt tcagcagcag ggtttgggtt ttgtggactt 1020 getettetet gtageaatat ggeaggaggt geeaggeete geettettaa gaggegtggt 1080 tcaaagagaa aagagcacgc ctgccagtga gctgggcctg agggcagcgc tgaggaqatg 1140 ctgctcctga cttccctgga ggtttctcag aagetgcatg ctaacccctg ggctctqqqc 1200 catcaccagg teteatgtgt tgatecacce tetgtgette tgtgtaaaat tteatggegt 1260 taaaattcag tettagecag gtgggtggtt caegectata ateccageae tttgggagge 1320 tgaggtggga ggattgcttg agcccaggag tcaaqaccag cctqqqcaac aqagtqaqac 1380 cocateteta etaaaaatta aaaaaattag cogtgeatge tggettatge etgtggteee 1440 agetacteca gaagetgagg egggaggate aettgageet gggaggttga ggetgeagtg 1500 agccaagatg gtaccactac cgtctagcct gggtgacagc cagaccctat atcaaaaaaa 1560 aaaaaaqqqq qqqcccttt

agteacetee agaceceaga ageteteece aacecageeg agtteetetg caaacaatte

60

1579

<210> 428 <2115 413 <212> DNA

<213> Homo sapiens

<400>	428					
tcgaggagcc	ccagggtagt	cccatctggg	tatggctggc	tgggtcacta	acttctgtga	60
gctgcttcct	tcctttccag	aggatgcgga	tcaaacctca	ccaaggccag	tacataggag	120
agatgagett	cctacagcac	cacaaaggtg	aatgccgacc	acagaaagat	tgagcacgac	180
	ctgcgggcct					240
	atgttcctgc					300
taaacgaacg	tacttgcaga	tgtgacaagc	cgaggcggtg	agccgggcag	gaggaatgag	360
ccttcctcag	gggttcggga	accaccttct	ctcaccagga	aagactgata	cag	413

<210> 429

<211> 1567 <212> DNA

<213> Homo sapiens

<400>	429					
cccacgcgtc	cgctccaggc	tcctggagtg	cctcatgctg	gctaagttct	ctctgggctc	60
	tatgtgtgat					120
	tgactgggaa					180
gaccctcata	ccacatgacg	tggcggcgtg	gggccaggaa	ctagggaagg	cagaaggcgg	240
gcgcagtggg	cagetetetg	ggctcagctt	gctgaggggg	cctcctgtcc	tggctctttc	300
	cattcttctg					360
	ccggcctgtg					420
gaaccccatg	tggaaagagc	cctcagaact	gacaggaatc	agggacagag	gcccttgctg	480
tcagcctcct	gggcacctgc	acctgccagg	cctctcttc	ttaccagccc	agtgetgetg	540
ccaaaatcca	gggctatccc	agetgeeegg	gaccccagtt	gagccgggat	attttgtctt'	600
ctggagatgg	ctggtgggca	ggcctcagtg	gtcatcatag	ggtctgcggg	ggtcctgggg	660
tgcaggtggg	gctcctcagg	gaagagccat	agtctgtccc	caagtcggaa	gggtaatctt	720
catcttctct	cacaggagee	acaaaccact	gtggtacaca	acgctacaga	tgggatcaag	780
ggctccacag	agagctgcaa	caccaccaca	gaagatgagg	acctcaaagt	gcgaaaacag	840
gagatcatta	agattacaga	acagctgatt	gaagccatca	acaatgggga	ctttgaggcc	900
tacacgaaga	tttgtgatcc	aggcctcact	tcctttgagc	ctgaggccct	tggtaacctc	960
gtggaggga	tggatttcca	taagttttac	tttgagaatc	gtgagtgggt	tegtgetget	1020
gatatactcc	tgcctgcccc	tttacccctt	tgtctctgtc	tectgeteac	cttctcatcc	1080
cagttgccca	cttttccctt	atttgacctt	cgtgctgcac	tcctactctg	tatgettgte	1140
cccttgtgcc	ccgatggttg	tagacaggca	cctttgaagg	ccctgctcct	gagetecaag	1200
tgccattcat	tctgcagctg	ctttgtggca	gtgccagtca	ccacaatcaa	gctcacttat	1260
	gcgcggtggc					1320
cggatcacga	ggtcaggaga	tcgaggccat	cctggctaac	acggtgaaac	cccatctcta	1380
ctaaaaatac	aaaaaattag	ccgggcgtgg	tggcggtgcc	tgtagtccca	gctactcggg	1440
tggctgaggc	aggagaatga	tgtgaacctg	ggaggcagag	cttgcagtga	gccaagatca	1500
	ctccagcctg					1560
ttattta						1567

<210> 430 <211> 728

<212> DNA

<213> Homo sapiens

<400> 430 etttecacae catggtecaa gggaaggget gecetgtetg aagagteeg eecaettgta ggatgagacg tggaaaatat tgttgctgta acttaaaaaa caagaccagg ggggttggct 120 gggagcaceg gecageagge cetgetgage ataaacecee tecaetggag aaggegtgge 180 ccctqcccac ctggaccctt ctggaaatga gggaagtgct aacagcagtg cccatcccac 240 aaqcattaaa ctcgggaggt ggagactctc cagcagaaag ctgggcagca gagtggtcct 300 geceetegge ecacaaaggg cettggeega geatgggeat geetggtgtg tgeceaetgg 360 ggtccatccc tqccaqtqqq qttccaqqqa cctcqqqqae cqqqctqett qqqcccttqq 420 acticagety ageograpay goggetygy goaggeggag cagetycety caggggaggg 480 acacqqtcaq qqqctacctc ccqqacaccc tqqcctctcc acaqqcaqct atccatqatq 540 ctgatgctgg cgcagtcaaa cccgcagctg ttcgcgctta tgggcacccg ggcaggcatc 600 gccagggagc tggagcgtgt ggagcagcag teteggetgg agcagetgag tgeggcagag 660 ctgcagagea ggaaceaggg ccactggget gactggetac aggegtacag ageceggetg 720 ggagagga 728

<210> 431 <211> 1524 <212> DNA

<213> Homo sapiens

<400> 431 gaaatggtac tottttcatc atggtgatgc atatcaaaqa tottqtqaqt qattacaaaq aatgatggtt gtagaggaaa cccttacctt qgtaggaagc attactatta agggactgct 120 tttttttttta ggttactgaa aatggagetg acceaaatce atatgtcaaa acatacetae 180 ttccagataa ccacaaaca tccaaacgta aaaccaaaat ttcacgaaaa acgaggaatc 240 cgacattcaa tgaaatgctt qtatacagtq qatatagcaa agaaacccta agacagcgag 300 aacttcaact aagtgtactc agtgcagaat ctctgcggga gaattttttc ttgggtggag taaccctgcc tttqaaaqat ttcaacttqa qcaaaqaqac qqttaaatqq tatcaqctga 420 ctgoggcaac atacttgtaa actagtgaat gtctgagctt tggaagcatg aacagttata 480 aacqtqcatq catacatqca cacacacaca gacacacaca cacacacttg ttaattttgt 540 ataqtatttt tatacttqqa caqaacttat aaaqttaaat atacttqctq catttcaaca catctqttqq accaacagtc acataactaa cctttttqaa tttttqgaaq ccattqctqt 660 tttaaagtca ttatgtagaa tgctacaaac cctaaactta atatatacta attcctqaaa 720 aaqactitga gacagtacta tgtcagttca gccacctatt ttgcattgtt ttctataagg 780 aggcaaagca tatgtgtttt cetgttatge acettttata geetttacca etgtgtaatg 840 ttcacaaaca ccaaagtaaa ggaaaaatgc aggatgttac cgtaaaatcc agctgctatt 900 catggagetg aaaaacaaag cacaaataat agatagetaa gttaagaact actaagtagt 960 ttataqaaqt aqqqaaaaac qtaatactqc tttttattca tqtctttaaa qcctttttca 1020 gaataagtgc caatcactga tgttgtaaat aatggtgcct taactttata tgcttccctg 1080 geacttegtt tetgattttt tteetgattt gataaataat tagtacatag tttteactea 1140 cttgcagctt actaaagaca agaaattatg tacatqtact aatgtttttc ccacaaaaaa 1200 atcetttact tetgatgtat gaattagtta tetaaatagt taageetaat acetgaataa 1260 gactcaccaa tgtgattgta caataaatte tatcattcca ttaaaatcct acatttatte 1320 ccaggaatgg taatttcacc tecetacate tatactccac teceteagta aataagtgaa 1380 aattgttaac ccatgtgccc attcctgagt agggcagact cttcacaaga ggcccatgac 1440 aagaatteta gggteeagat tgaaetttaa tatagaeett tgtetgtgta gaeeagtttg 1500 tettqtaaac tqtettaett atqt 1524

<210> 432 <211> 1908

<212> DNA

<212> DNA

<213> Homo sapiens

<400> 432 gtetetatgg aattataget cacetacttt tgggggaate atgtaaggta attttattte 60 attatotatt actagaatot attottttaa aatototeta ettittigaa ototeattit 120 ottottottt teattgagat ggggtettag tatgttgece aggetggtet egaacteega 180 acctcaaatg acctgcccgg ctcggcctcc caaagtgctg ggattatqqq catqaqtcat 240 tqcatccaga caaaaqtgtc attqtttaat cttqatttga aagaacttta qqtatttaaa 300 acattatgtg gttcttttgt gcaagcgctt tatccctaag tcgtttgatt atccagggtt 360 gaaagcaact ctctctgact tctgcactca gaaagcgctt ggtctaattg tgttctcctt 420 cctgtctctt agcttcacag gataatgcag ctggctgtgg ttgtatcaca agtacttgag 480 aatggtteet eagttttggt etgtttggag gaaggetggg acateactge acaagtgaca 540 tecetagete agetacteag tgatecette tataggacae tegaaggett ceagatgetg 600 qttgaaaaaq agtqqctctc ttttqqtcac aaattcagtc agaggagcag cttgaccctc 660 aactgtcagg ggagtggttt tgctccagtc ttcttacagt tcttagactg tgtacaccag 720 gttcacaacc agtatccaac tqaqtttgaa ttcaatctct attacttaaa gttcttggct 780 ttccactatg tgtctaatcg ctttaaaaca tttctcctgg attcagacta tgaaagatta 840 900 gaggagggaa ctttatttga tgataaagga gaaaaggatg ccaaaaaaagg agtctgtatt 960 tgggaatgta ttgacagaat gcacaagagg agtcccattt tctttaatta tttatattca ccattggaaa tagaggetet aaageecaat gtaaaegtet etageeteaa gaagtgggat 1020 tactacatag aagagaccct gtccacaggc cettectatg actggatgat gctaaccccc 1080 aaqcacttcc cctccqaaqa ctctqacctg gctggagaag ctgggccacg gagccagagg 1140 aqaacaqtgt qgccatgcta tgatgatgtc agctgtactc agcctgatgc tctcaccagc 1200 cttttcaqtq aaattqaaaa attggagcac aaattgaacc aagcccctga gaagtggcag 1260 caqctqtqqq aaaqqqtaac cqtqqacctt aaaqaagaac caagaacaga tcgctcccaa 1320 1380 agacacctgt cqaqatcccc aqqaattgtg tctaccaacc taccttccta tcagaagagg tototoctac atotoccaqa caqcaqcatq qqqqaqqaac aqaattocaq catotoccca 1440 tocaatggag togagegaag agcagecacg ctctatagec agtatacate caaqaatgat 1500 qaaaacaqqt cctttqaqqq aacactttat aaaaqaqqqq ctttqctqaa aqqttqqaaq 1560 cocceptort ttgttttgga tgtaacaaaa catcagctgc qctactatga ctcaggtgag 1620 gacacaaget gtaaaggeca cattgatetg getgaagtag aaatggteat eeetgetgge 1680 cccaccator rarecccaaa qcacacaart qacaaqqctt tetttqatet caaqaccaqe 1740 aaacototot ataacttoto coccoaggat ggacagagto cccagcaato gatogacaag 1800 atccagagtt gtatctctga tgcctgatgc ccatggtcaa cccacgcaga agaaacagaa 1860 gaactcatgc tgccagatag atagaacaag aagcatggat ccttgagg 1908

<210> 433 <211> 1714 <212> DNA <213> Homo sapiens

<400> 433 ttttttttt ttgacaagtt tgcaaqtttt attgaattaa tgqctggctt tcacagatgt taatcactqq cqqqqqttq aataqqqqqa acaqqaaaat qctctccaga ggttcccact 120 gaagceettt catetgeeet geeecaacee accaetgaag ecagaggtea tgggagttgg 180 240 gatetaacta caetetgtga acttaccace acceatteca tececaagee catattttat ttgggactag gccactgatg cccgggccct tcctcttcca gtagggtggg agggtgggag 300 gtggggacac ggaccaaccc tcaaggaaag aaaagaggtt aaggtggggg gttttgctga atgtetaaga aatgteagtg gaacaqqget qqqqcacqqt qgeteacgec tgtaatecca 420 gcactttggg aggccaaggc aggtggatca cctgaggtca ggagttcgag accagcctgg 480 ctaacatggt gaaaccccat ctctactaaa aatacaaaaa ttagccaggc gtggtggcag 540 gtacetgtaa teecagetae ttgggagget gagacacagt etegetetgt ggeceagget 600 ggatggagtg cagtggtgca atctcggctc actgcaacct ccgcctcccg ggtttaagca 660

aaattatcct	gcctcagcct	cctgagtagc	tggattacag	gcaggcacca	ccacgtccgg	720
ctaatttttg	tatttttagt	agagatgggg	ttttgccatg	ttagccaggc	tggtctcgaa	780
ctcctgacct	caggtgatcc	gcctgccttg	gcctcccaaa	gtgctgggat	tacaggcgag	840
agccaccacg	cccagcctct	gcttcgtgag	ttttctttcc	cctgaggcac	cctctgagtt	900
ctccacgtgt	cagacccatg	tccaatgcac	cacgctcctt	ccttcacacc	atgaaagccc	960
cgaagtaaga	ccgggtacca	tcacgcagtc	gaaccaggcg	ttcatccagc	acacggacga	1020
ccacctcctc	cccagcctcc	aggtgtacca	caccacccag	gaagctgctg	tcccaccaga	1080
cccgggagct	gctggtggcc	cgtccgcagg	gtgactgctg	gctgaccaac	agctccagct	1140
cctcggggta	gcggggtgtg	cgcttgtaga	ggccgtgggt	gatggtgctg	gccaggccca	1200
gcgggcagcc	cacaccgccc	agctgcacct	tggagtagat	gtagtagtag	ccagctttgg	1260
tgaccacaag	ggccccatcg	tggtagctga	ggcccctcag	gaaggccagg	cccagctgag	1320
teteceataa	cagcggcccc	ccgctgccgg	tcaagctgga	gttggcccct	gtgagatgcg	1380
ctgctgggtt	gacctcgtga	gaccttcgct	cttgtatcag	ctgctcccag	gagcctgcag	1440
gtccgtcagg	caggcgggtg	accatctctc	ctagacgcca	gtgcagctgc	aggaggaacc	1500
agccttggac	ggccagccca	gcccccatca	gcaacagcaa	gagacccaga	cccacccggg	1560
ccacactgca	cgactgtctc	cggtggcttc	gtcccagcct	cgtgaatggg	atgtcggtct	1620
gtccatccac	cacaaacact	gagggccgta	cgacactctc	ctccatgccc	aaggtctctg	1680
qaqcaqqqct	gacacgcctg	ggtccttcaa	cctc			1714

<210> 434 <211> 478

<212> DNA

<213> Homo sapiens

<400> 434 tttcgtcaga gatagcagag cgccgagttg gggccacgaa ggcgtgaggg gagtcgtcgt 60 cectectgea egaaagegte taageettgg egaegeegee etgggggaee eaegteagge 120 ctgggatagg gaccgctgtc cccgggtccc taccaatgtc gcccgtcgct cccggcccag 180 ctctacccgc agagtctgat ggcagcggcc actctgagga cgccaactca ggtgagtgcg 240 gegtetteec gteeteacac acetteecec acecaegtte taaagecate agtgagggge 300 geetgetega gteecegetg eccagggteg gggacactga ggegttegtg ggtggggeee 360 tttttttgac actgcgtgtg acgaggtgtg ggagagcgtg acaggeggag gaaceggege 420 478 gtgcaaaggt tgaggcgca ctgagccagg agaattcgga aagctgtttt ctgcaggc

<210> 435 <211> 1893

<212> DNA

<213> Homo sapiens

<400> 435 cagcagegeg caggicetea ecatagetet ggiggecace tetgiceege catgetgete 60 accgacagtg gccagggccc acagcaccaa gaggcttggg ccacaaagta aagggtcgcg 120 gageetegee ggeegecatg tggagetgea getggtteaa eggeacaggg etggtggagg 180 agetgeetge etgecaggae etgeagetgg ggetgteaet gttgtegetg etgggeetgg 240 tggtgggcgt gccagtgggc ctgtgctaca acgccctgct ggtgctggcc aacctacaca 300 360 gcaaggccag catgaccatg ccggacgtgt actttgtcaa catggcagtg gcaggcctgg 420 tgetcagege cetggecect gtgeacetge teggececec gagetecegg tgggegetgt 480 ggagtgtggg cggcgaagtc cacgtggcac tgcagatccc cttcaatgtg tcctcactgg

tggccatgta	ctccaccgcc	ctgctgagcc	tcgaccacta	catcgagcgt	gcactgccgc	540
ggacctacat	ggccagcgtg	tacaacacgc	ggcacgtgtg	cggcttcgtg	tggggtggcg	600
cgctgctgac	cagcttctcc	tegetgetet	tetacatetg	cagccatgtg	tccacccgcg	660
cgctagagtg	cgccaagatg	cagaacgcag	aagctgccga	egecaegetg	gtgttcatcg	720
gctacgtggt	gccagcactg	gccaccctct	acgcgctggt	gctactctcc	cgcgtccgca	780
gggaggacac	gcccctggac	cgggacacgg	gccggctgga	gccctcggca	cacaggctgc	840
tggtggccac	cgtgtgcacg	cagtttgggc	tetggaegee	acactatetg	atcctgctgg	900
ggcacacggt	catcatctcg	cgagggaagc	ccgtggatgc	acactacctg	gggctactgc	960
actttgtgaa	ggatttctcc	aaactcctgg	ccttctccag	cagctttgtg	acaccacttc	1020
tctaccgcta	catgaaccag	agcttcccca	gcaagctcca	acggctgatg	aaaaagctgc	1080
cctgcgggga	ceggeactge	tccccggacc	acatgggggt	gcagcaggtg	ctggcgtagg	1140
cggcccagcc	ctcctgggga	gacgtgactc	tggtggacgc	agagcactta	gttaccctgg	1200
acgeteccea	catccttcca	gaaggagacg	agetgetgga	agagaagcag	gaggggtgtt	1260
tttcttgaag	tttccttttt	cccacaaatg	ccactcttgg	gccaaggetg	tggtccccgt	1320
ggctggcatc	tggcttgagt	ctccccgagg	cctgtgcgtc	tcccaaacac	gcagetcaag	1380
gtccacatcc	gcaaaagcct	cetegeette	agectectca	gcattcagtt	tgtcaatgaa	1440
	cttagagcca					1500
tttgttttac	aaaaacagat	gtttcctaga	aaaatgacaa	atagtaaaat	gaacaaaacc	1560
ctacgaaaga	atggcaacag	ccagggtggc	cgggccctgc	cagtgggcgg	cgtgtgctag	1620
caaggcctgc	cgggtgtgcc	gcagtcacca	cagggttctg	agaacatttc	acagaagtgc	1680
ctgagacgcg	gagacatggc	tggtgttaaa	tggagctatt	caatagcagt	gacgcgctct	1740
cctcagccac	caaatgtccc	tgacaccctc	cccagccccc	acagataaca	tcagctgagg	1800
	tatgaacctg			gtgtgcacaa	aactaaagaa	1860
tataaataaa	ccaaagaaag	gtgaaaaaaa	aaa			1893

<210> 436 <211> 1968

<211> 1968 <212> DNA

<213> Homo sapiens

<400> 436

ccttgcttgc	aggaagccat	gcagttagtt	tctgcagtta	gtcgtgtgag	gctaggtggt	60
tgggcaggcc	tegggetgta	ggtgttgggt	gggaaaaaga	cccaagggcc	tgaaagggag	120
ggaaagggga	gggtagcggg	agggtagcag	gtgagttcct	agggctggaa	ggtttaacag	180
cagcctggtg	cagtgccctg	tcatcaagac	aaacccacgg	tecteetggg	tgcctaccaa	240
gcttggtttg	tacaaaagca	aggtgggagt	ctatttttgt	acatgagata	catcacactt	300
acctgtgggc	cagtattgtg	aagtgagtct	gagttgttta	cactgatgcc	ttecctgccc	360
accacaaatt	gtgtacatag	tcttcagatg	ataccacccc	tttccccagc	teccaaccaa	420
gagctggttc	taggcctgtg	ttatatgtca	tatttagcgt	ttttatatat	gacctttgat	480
ttctgttgtt	tgtattttag	cacagtgtat	gcaccttcat	ttaaatacat	ctgtgtgcat	540
acagatacgc	atatatgtgt	gtgcgtatgc	atatatetet	catctgtagt	ttccaagagt	600
tcagctgaag	cagatggagt	cctgcagccc	aggagacacc	ctgcatccct	gctaatagtg	660
tttgccacaa	gtattagtga	gtetteetta	ttaatattt	catttcagaa	gactgaagca	720
aagctgatag	tgtttgctgt	ttctttggca	gctaagtgag	ggtcttggga	tgacttgctg	780
tgttcctcaa	gctgcacttt	ggggccatct	ctgcagtatt	agcccccttt	ttgcttggtg	840
gtactctgtc	tgtgcctgtg	tgtgtgtgtg	atagtcactc	ttgcatggct	tccatgtctg	900
gtttgtggca	tttggggata	aggtgctgaa	gccagagcat	ttgcagtttg	tttgaggcct	960
cgttgccaat	gatagatcac	tcctgttgac	ctggtatgtc	tgcttgcttg	ctgcttttcc	1020
ttgctttctc	ttggaagagg	aaaggactct	ggtcaggccc	aggetgagtg	agatgagctg	1080
cagetggete	atggccttct	tagagcagag	agaggagtat	gtcattttac	taagttccta	1140
aacaaacatt	tatgcaggca	acactccttg	cagatccaga	aactgaggca	caatagggtt	1200
atgacttgct	caagaatatg	tagctgctag	ggggtaaatc	aaggcatcac	aatttctgtt	1260
cagcgggcag	gaataggctg	tgaattgcta	gcacttttt	tttttaagca	attactttt	1320
gacttgttcc	tctgaaaggg	caagaggcgt	acacctttcc	caaatgtaaa	ctaaaatctg	1380
caggatgcca	cccactgtat	agttctgctt	tcccagagag	gaagaacttt	tagaaaccaa	1440
atgatcttaa	ttgttattgc	ccacccctgg	cttttccggg	tagaaaattc	acagtaggaa	1500

tgattgttaa	gagagagtgc	ttggaaccat	gggttaacag	gaaaggetae	ctaacttcac	1560
atatetgeaa	ccagagcagc	caccaagcat	tacttagcag	caggaaaatg	attgtatttg	1620
agttcctgtg	tgtccaaaac	tgaggcacca	tgttctttga	aaacatgcca	cctcaaggct	1680
gggcgcggtg	gctcacacct	gtaatcccag	cactttggga	ggccgaggcg	ggcggatcac	1740
cggaggtcgg	gagtttgaga	ccagcctgac	caacatggag	aaaccccatc	tctactaaaa	1800
atacaaaatt	agccgggcgt	ggtggcatgc	gcctataatc	tcagctactt	gggaggctga	1860
ggcaggagaa	ttgcttgaac	ccaggaggcg	gaggttgcgg	tgagttgaga	tcgtgccatt	1920
gcactccggc	ctgggcaaca	acagcaaaac	tccgtctcaa	aaaaaaaa		1968
		-				

<210> 437

<211> 422 <212> DNA

<213> Homo sapiens

<400> 437 ttttttttt ttgaggcaga gtetcactet gteaeccagg etggagtgta gtggegcaae 60 ctcagcctct ccaagtgctg ggattacagg catgagccac cactcccagc caatagtgaa 120 ttttctaaga gcatgtatcc ctatcagtaa gtaacaggga tacatgaaga tacttataaa 180 atacagaaaa actgcccagc aaatcagggc cctaaacagt tggtagattc cataaattca 240 actggctacc atgtatagcc ctcactgtaa ggtaggtggt taggtttcta gagagcatta 300 360 gtcttagaat tatgaagagc catattaacc caaatgattt ctaaatttag atatatattt tecetgetae ataaaaacte tgggtaataa etagaaatag acceacaatt tagagacaat 420 qt 422

<210> 438

<211> 1319

<212> DNA

<213> Homo sapiens

<400> 438

aggcagcaeg eggaggageg eggcegeege aaccecaaga eggggttgae cetggagegt 60 120 gtgggccctg aaagcagccc ttacctcctg cggcgccacc agcgccaggg ccaggagggc gagcactacc acagetgegt geagetggec cegacgegag geetggagga gtetgecacg 180 240 geceectgag cttgccqqtg qccctcgqgt qqqcqqgqtq gcgccgcqgc cactqaagca ccqcqcatqg aqtqqaaaqt qaaqqtqcqc aqcqacqqaa cccqctacqt qqccaaqcqq 300 cccgtgcgag atcggctgct gaaagcccgt gccctgaaga tccgggagga gcgcagcggt 360 atgacgaccg acgacgacgc ggtgagcgag atgaagatgg gccgctactg gagcaaggag 420 gageggaage ageacetgat eegggeeegt gageagegga ageggegega gtteatgatg 480 cagageegge tggagtgeet gegggageag cagaatggeg acageaagee egageteaac 540 atcattgece tgagecaceg caaaaccatg aagaagegga acaagaagat cetggacaac 600 660 tggatcacca tecaggagat getggeccae ggegegeget cegeegatgg caagegggte tacaaccete tteteteagt caccaccgtg tgagetgeec gggegggtac aeggeccagg 720 cccagggaac cccctggggc cccggccctc actctcctat agagattgtg tgtgtgtgt 780 tgtgegegeg egegtgeteg etgtgegeac geacacatet egtetgggtg tgegeacagg 840 getttgttag cagagagaag ceeetgagga gaagggaege ttttetteet tetgeecaag 900 taaagtgacc atgccagtgg ccagcactgg gggcacacct gtgatgggca ccccttcagc 960 tgtgcgtgtg cattccccat cccccatqct cttgcgtgtg cttgcacqtq cacqcacaca 1020 1080 cacacccagt geteteteca eccqaeccqt gtacttgcag acagggaage tqagetgaaa

ggagcacaag	agagtgtccg	gcttcgctgc	tgagcgcggc	ctctccccgc	cgctgcgcac	1140
tgcagttatt	tgtagacaaa	ggcacccctg	atttttgtgg	tttttctccc	tttctgtgct	1200
tgccaatagt	tgttttgttt	tgtggacctg	ccctgggggc	tggcagctcc	ttcaggcagc	1260
ctggcagaag	tggaactccc	ctctccactg	atggctggga	agggagttgg	ggaggaaga	1319

<210> 439

<211> 1689 <212> DNA

<213> Homo sapiens

<400> 439

```
gagogatega ggetgeageg eggeegeegg gegeaacatg actgeegteg gegtgeagge
                                                                  60
ccagaggcct ttqqqccaaa qqcaqcccq ccqqtccttc tttqaatcct tcatccqqac 120
cotcatcatc acgtgtgtgg coctggctgt ggtcctgtcc tcggtctcca tttgtgatgg 180
gcactggctc ctggctgagg accgcctctt cgggctctgg cacttctgca ccaccacaa
                                                                  240
ccagagtgtg ccgatctgct tcagagacct gggccaggcc catgtgcccg ggctggccgt
                                                                  300
gggcatgggc ctggtacgca gcgtgggcgc cttggccgtg gtggccgcca tttttggcct
                                                                  360
ggagttcctc atggtgtccc agttgtgcga ggacaaacac tcacagtgca agtgggtcat 420
gggttccatc ctcctcctgg tgtctttcgt cctctcctcc ggcgggctcc tgggttttqt 480
gatectecte aggaaceaag teacacteat eggetteace etaatgtttt ggtgegaatt
                                                                  540
cactgootec thectectet teetgaacge cateagege etteacatea acageateae
ccatccctgq gaatgaccqt gqaaatttta qqccccctcc aqqqacatca qattccacaa
gaaaatatgg tcaaaatggg acttttccag catgtggcct ctggtgggc tgggttggac
                                                                  720
aagggccttg aaacggctgc ctgtttgccg ataacttgtg ggtggtcagc cagaaatggc
                                                                  780
cggggggcct ctgcacctgg tctgcagggc cagaggcag gagggtgcct cagtgccacc 840
aactgcacaq gcttagccaq atqttgattt tagaqqaaqa aaaaaacatt ttaaaactcc 900
ttcttqaatt ttcttccctq qactqqaata caqttqqaaq cacaqqqqta actqqtacct
                                                                  960
gagetagetg cacagecaag gatagtteat geetgtttea ttgacaegtg etgggatagg 1020
ggctgcagaa tccctggggc tcccagggtt gttaagaatg gatcattctt ccagctaagg 1080
gtccaatcag tgcctattct tccaccagct caaagggcct tcgtatqtat qtccctqqct 1140
tcagctttgg tcatgccaaa gaggcagagt tcaggattcc ctcagaatgc cctgcacaca 1200
gtaggtttcc aaaccatttg actcggtttg cctcctqcc cgttgtttaa accttacaaa
                                                                1260
ccctggataa ccccatcttc tagcagctgg ctqtcccctc tqqqagctct qcctatcaga
                                                                1320
accetacett aaggtgggtt teetteegag aagagttett gagcaagete teecaggagg 1380
gcccacctga ctgctaatac acagccctcc ccaaggcccg tgtgtgcatg tgtctgtctt
                                                                1440
ttgtqaqqqt taqacaqcct caqqqcacca tttttaatcc caqaacacat ttcaaaqaqc
                                                                  1500
acgtatctag acctgctgga ctctgcaggg ggtgaggggg aacagcgaga gcttgggtaa
                                                                  1560
tgattaacac ccatgctggg gatgcatgga ggtgaagggg gccaggaacc agtggagatt
                                                                  1620
tocatcottq ccaqcacqtc tqtacttctq ttcattaaaq tqctcccttt ctaqtcctta 1680
aaaaaaaa
                                                                  1689
```

<400> 440 ccagatectg cccaacetet atetgggeag tgcccgggat tecgccaatt tggagageet 60

<210> 440 <211> 1574

<212> DNA

<213> Homo sapiens

ggccaaactg	ggcatccgct	acatcctcaa	tgtcaccccc	aacctcccaa	acttcttcga	120
gaagaatggt	gactttcact	acaagcagat	ccccatctcc	gaccactgga	gccagaacct	180
gtegeggtte	tttccggagg	ccattgagtt	cattgatgag	geettgteee	agaactgcgg	240
ggtgctcgtc	cactgettgg	cgggggtcag	ccgttctgtc	accetcacte	tggcctacct	300
catgcagaag	ctccacctct	ctctcaacga	tgcctatgac	ctggtcaaga	ggaagaagtc	360
taacatctcc	cccaacttca	acttcatggg	gcagttgctg	gactttgagc	gcagcttgcg	420
gctggaggag	cgccactcgc	aggagcaggg	cagtgggggg	caggcatctg	cggcctccaa	480
cccgccctcc	ttcttcacca	ccccaccag	tgatggcgcc	ttcgagctgg	ccccaccta	540
gggccccgtg	gccggcaggc	cggcccctgc	cccaccccca	cccacgggtg	tecetgecea	600
ctcgtgtggc	aagggagggg	agggcaggag	ggeteggeet	gagcagggtg	ctggggggag	660
agcgcaatac	ctcacgcggg	ctgccgtcct	aatcaacgtg	cctatggcgg	gaccacgctc	720
ggagcctgcc	tettetgega	ctgttacttt	ttctttgcgg	gatgggggtg	ggggttccct	780
ctccaggtgg	ttgtccaggc	ccaggtcccg	gccctgggtg	ctcagccagc	toggetagge	840
cctgcgcctc	cctgcgcttc	ccccttcagg	aagggtgtgt	gccacctcgt	tgcactggat	900
cccagtggct	gcttggggga	gaggcgtttg	ccatcactgg	tgttgtcacc	tccctgtttc	960
tccaccaagg	gettgggeet	ctcggggctg	gggcctccca	ggggatgggg	acccagaggt	1020
gcagtggccg	cccacatcca	tggcctagga	gctactgggc	aggttcccgg	ccacacatct	1080
ggtgggctgt	tttgttttt	ttttttcctc	ttcccccaaa	tgtcttgacg	ggatcactgg	1140
ggctctttgt	gagggagggg	ggccaaacta	ccgccggagg	aaatggggtc	tcagagcgag	1200
agctgcggag	ggggaggga	aaaaaaggc	ctcacttttg	ctgcctgcgg	ggccccacac	1260
agccgctgct	actttggggg	gtgggggaag	gggccaaagc	tgaagacaca	cacagtcatt	1320
	caacacccct					1380
acgtgtcggc	gctcacacac	acatgctagc	ccactgatgc	acccagccca	gggctggcag	1440
	gtggggccgt					1500
ttgtaatcca	tatcatagtt	gctttcttta	attgttcctt	ctgaataaac	agtttattta	1560
agataaaaaa	aaaa					1574

<210> 441 <211> 1102

<212> DNA

<213> Homo sapiens

·<400> 441 ttttttttta aaaaaaaatt aagetettta attatgtgca cacagatttt agaaaaggta geettttgta tatagatace tttacattet ttaggetgae ttttaaattg teatettttt 720 tcaactacag tttttgtata tagtaaacca gaagatgtgt atggaccctg ttatggccaa 180 gcatctcaaa gatgaagaga gaattaatga tagttatatt tcactcaaaa tgccaaaaaa 240 aaaaattcaa caaaqtaaaa attttaaaac ttqactctaa ctaqttcctt tttqttttac 300 attotcaaac cattqtcaaa tattctaaat atctctqaqa atttctcttt taatqcttca 360 cttqtataat cttaaaatcc tqacaqtcat acaatacagc atqtaqtagg taccttttct 420 tgaggcacat tcaagtgttt tggcaaacag taaaaagtat ctaaatgcca caggttaaaa 480 tgtcaagttt tactgagtca ccaacttcac ctcttttgat ctgcctgttc tccaagaaca 540 tcattctccg gaagatccaa gttcctctag ttqttttctt tqtqttqttt ccaqttcttc 600 tagtettttg egaagtagag agagtteeet ttgatgttgt teeteetgea tatgaggagg 660 anatygtagt tocatgettg gaacccatgg etgatgactg anagctanca ggattgatag 720 atgctgttgg aggcatgtta ggaaccaaaa ttagacttcg aaattcatta tgtcttctct 780 gtatatettt tagtetttt tgaageettg tataqtette aaaaggaaca ttttgtetat ttaagacetg attttetgtt tecaattett etttetttge etecaagact tetaetttet cttgtagtct tttcaatttg ttttcatgaa qaqattttct ctaaaaaqaq aaatatqaac aagtatgtta atacataatc tottatttga acaaaactat atagaaaata ttttactcac caaaaactgt gtttagatat gaatgttttc agtgaatact agaaacaaag gttagtagac 1080 atggetetta etgaaaattg ca 1102

<210> 442 <211> 1049 <212> DNA <213> Homo sapiens

<400> 442

ggaaggeetg gtgcaggage etetgagete ttteettetg tgaccaegga cetgtcagtt 60 tecaaacaaa acqcqtgcct cacttgtgtg gattttgtca ctgtgcatgt atgtatqqqt 120 ttetggggca ttggteetgg tgetetetee acateetgea teeegtacee tetgteteat 180 ggcccaggca gtgtgaaggc ggagatgctg cacatgtaca gccagaagga cccgctcatc 240 ctetgtgtgc gcetggcegt gctgctegeg gtgacectca ctgtgccagt cgtgctgttc 300 cetateegee gggeeetgea geagetgett tteecaggea aggeetteag etggeeacga 360 catgtggcca tagctctgat cctgcttgtt ttggtcaatg tccttgtcat ctgtgtgcca 420 accateeggg atatetttgg agttateggg tecaceteag ecceeageet catetteate 480 ctccccagca tcttctacct ccgcattgta ccctctgagg tggagccttt cttatcctgg 540 cccaagatec aggeeetgtg ctttggagte etgggagtec tetteatgge egteagteta 600 ggotttatgt tigccaactg ggccacaggc cagagccqca tqtctqqaca ctqatcaggc 660 cctgctggcc caggtccctg tgcgcatgca catggagggg tcagggccgc tccctagggt 720 ccctcctgcc caacatgtgg aggtggctgg ttcccatgaa cgtggttgtc agaggcgggg 780 gacagcagag gctgcagact ggcccacttc cctcctcccc agggatgcca agcttggatc 840 atggccctaa tcccaacccc aaccccatgg gaggaggagg aggaggaaga agaggaggag 900 gaggaggagg aggaggagga ggaggaggag gccaggtcct ggtggagcct ttgcccagcc 960 cagtcctctc tgcctcctcc tggctgaagc tgtttgtcca ggattaccct cggggctaaa 1020 gaggaaaaat aaagatgttg agctaccaa 1049

<210> 443 <211> 458 <212> DNA <213> Homo sapiens

<400> 443

gaattoatga ottaaogtoa gitagtattg ottaatggaa togacataca tattgitata 60 cogtgaatca ttttcagtca agaccacatt totcagagtt tgccaaaaca aaccttctgc 120 cttcqqqttq tcaqqccact qqaqqatqqa qctcttacaq atccqctqcc qtaqcctcaa 180 atactgagaa tgctgtaaca ctggctccag caggataaat ataatcacat ccatgttctc 240 atccattage etetgeaaag ccaagtaaaa agetgtttta aagttecage tttttgcata 300 ttttttggtt aaaacaaata ctgttttctt gctttggttg atgctctgca tgaggttgtc 360 gatgatggcc aatcccgggt cccaatccct ctcctctaga caaaggagaa cgtttttgtc 420 toggetetet teaaggtggt agegeagete atttatea 458

<210> 444 <211> 1681 <212> DNA

<213> Homo sapiens

<400> 444 ttttttttt ttgggctaga ggtttgggct ttaatggcag ctggggtaaa aggaaacaaa aacagtaatt ctgaagagca cagggaacag gcagccagga ccagcctggc ccattccagg 120 ccagctgagc tgaaatgctg attctgtcca gggggctgct gtatgtgtag actggtggca 180 gtettgggga etgaggeete ttggagagaa gggaagaetg teggeteaga agteeatgga 240 getgtgggee aggtagteet tgegacegat gttgetgace tgettggtet geatageete 300 360 gagtttgggg cagtcagtga tecgatgace caggeeceeg cagaaggeae ageegegete tectecaatq tecaqeatqq acteatecee qeaatqeaqe acetqeaqea eqggeqqeae 420 cttctgcttg gcttctagca gcagcgcttt gaggtccatc agcactgact catcacacgc 480 tttqttqatq aaqqtaqtqq cqatqcctqt qtttcccqaq cqcccqqtqc qqccaatccq 540 gtgtacatag ttctcaatct cctctggcat gtcataattg atgacgtgct ggatggcagg 600 gaagtecagg ccettggagg caacgtetgt ggetactagg acatecttet tgeceteceg 660 gaatgeeteg atggeettag teegtteete etggtetttag ceeccatgga tggetacgge 720 ctcaaccccc ttgagcagca ggtactcgtg gatggcqtcc acgtctgcct tcttctctgc 780 aaaqatqaqt acaggcgggg gtgtcttctg caggcactcg agcaggtaca ccatcttggc 840 ctcctccttc acatattcta cctcctggat gacatccagg ctggcagccc cagcgcgccc 900 cacattgatg gtcacaggct ttacaagggc actcttagca aagttctgaa tcttcttcgg 960 catggtggca ctgaagagca gggtctgtcg ctggcccttg aagtaggaga agatggtacg 1020 gatgtcaccc tcgaagccca tgtcgatcat gcggtcagcc tcgtccaggg ccaggtagcg 1080 acagatgtet aggetgacca tettettetg cageaaatee atgaggegee ceggggtgge 1140 caccatcatg tgtacaccgt gtcggatggt ctccatctgc tctttcacgg acatgcccc 1200 aatgcaqagg gcgcaqcgca ggaqtqgtga gctgtcctcc tgcaqcaggc ggcaqtaqta 1260 ctccaggatg ccatgggtct gccgggccag ctcccgcgag gggcagatga tgagtccata 1320 gggccctcg cgctttgaga agggtaacct cttctcttgt tccaggcaga acatgatgac 1380 gggcaacgtg aacaccagtg tottgcctga acccgtgaaa gcgatgccta tcatgtcacg 1440 gccagataga atggtgggga tgccctggat ctgaatgggt gttgggtggt gaatgccttt 1500 cttcttcagg cctctcagga tggctgcagg aaacttcatt tccttgaagc tcttgatggg 1560 tggtgggata ccgtctccct ccaccaggat gtggtatttc ttccgcacgc gctcatgtcg 1620 ctetteagae atgeteagaa cataacgggg tggagtecag ctggttttga tggggtcate 1680 1681

<210> 445 <211> 621 <212> DNA <213> Homo sapiens

<400> 445 atcgagacca cccagcccag tgaggacacg aatgccaaca gtcaggacaa cagcatgcaa cetgagacaa geagecagea geageteetg agecceaege tgteggateg aggaggaagt 1.20 180 eggcaagatg cageegaege agggaaaeee cagaggaaat ttgggcagtg gegtetgeee 240 tcagccccaa aaccaataag ccattcagtg tcctcagtca acttacggtt tggaggaagg acaaccatga aatetgtegt gtgcaaaatg aaccccatga etgacgegge tteetgeggt 300 tetgaagtta agaagtggtg gaceeqqeaq etqaetgtgq agagegacga aagtggggat 360 gaccttctgg atatttaggt ggatgtcaat gtagatgaat ttctagtggt ggaaaccgtt 420 ttctaataat qtccttqatt qtccaqtqaq caatctqtaa ttqatctata actqaattcc 480 agettqtcac aagatqttta taaattgatt ttcatcctqc cacagaaagg cataagctqc 540 atgtatgatg ggttactatc aatcattgct caaaaaaatt tttgtataat gacagtactg 600 ataatattag aaatgatacc g 621

<210> 446

<211> 468 <212> DNA <213> Homo sapiens

<400> 446 taacqatcqc ttctctgctt gctacttcac cttgaaactc aaqgaaqcag ctgttaqaca 60 gcgtgaagcc otaaagaagc ttaccaagaa tatagccact gactcatata tcagtgttaa 120 cttgagagat gtctatgccc ggagtatcat ggagatgctg cgactgaaag gcagagaaag 180 agcaagtact aggagcagcg ggggagatga tttctggttt tgaattaatt ttcaatttat 240 ttacaaaagc tatgtacaat taactaaaat gataaagcag tgatgtggat ttctgtattc 300 tgatgatgag totottoaga gtactgotoa tottaattaa tttttgotga tatattgott 360 catctactag aatatttcac atcacctata acaactgcac agtgttctqa cacatttqag 420 tgtccaaaat agccaattaa cacaaccaaa tacaactggg catgtatt 468

<210> 447 <211> 1030 <212> DNA <213> Homo sapiens

<400> 447 ctttactqtc ttcattctqq qaataactat tcqaccactq qtqqaqtttc ttqatqtcaa 60 gaggtocaat aagaaacaac aagotgtoag tgaagaaato tattgtoqqt tqtttqatoa 120 tgtgaagact ggaattgaag atgtttgtgg acattggggt cacaactttt ggagagacaa 180 gtttaagaag tttqatgata aatatctgcg gaagcttttq attcqgqaaa accaaccaaa 240 gtcaagtatt gtatctttat ataaaaagct tgaaataaaa catgccattg agatggcaga 300 qactqqqatg ataagtactg tccctacatt tgcatctcta aatgattgtc gtgaagaaaa 360 aataaqqaag gtcacgtcca gtgaaactga tgaaattcga gaactcttat caagaaatct 420 ctatcaaatc cqtcaqcgaa ctttatccta caacagacac agtctgacag ccgacacaag 480 tgagagacaa gccaaggaga ttctgattcg ccggcgacac agtttgcgag aaagcattag 540 gaaggacagc agcttgaatc gagaacacag ggcttccact tcaacctccc gatatttatc 600 cttacctaaa aatacgaagc ttccagaaaa gctacaaaag aggaggacta tttctattgc 660 agatggcaat agcagcgact cagacgcaga tgccgggacc accgtgctca atttgcagcc 720 cagagecagg cgcttcttgc cagaacagtt ctccaagaaa tccccccagt cctataaaat 780 ggaatggaag aatgaggtag atgttgattc tggccgagat atqcccaqca cccccccaac 840 accecacage agagaaaagg geacceagae gteaggetta etacageage ceettetete 900 taaagaccag totggotcag agagggaaga cagtttgact gaaggcatcc cgcccaagcc 960 gccaccacgg ctggtctgga gggcatcgga acctggaagc cggaaagccc gatttgggag 1020 tgagaaqeet 1030

<21.0> 448 <211> 1936 <212> DNA <213> Homo sapiens

<400> 448 ggcacgagga ggcetcgqgg ctgtccgtgt ggatggggaa geagatggag ceettgeacg cagtgcccc ggcagccate accttgatet tgtccttgct cgttgccgtg ttcactgagt 120 gcacaagcaa cqtqqccacc accaccttqt teetqcccat ctttqcctcc atqtctcqct 180 ccateggest caateegetq tacateatge tgeestqtae estgagtges testttgest 240 teatqttqcc tqtqqccacc cctccaaatq ccatcqtqtt cacctatqqq cacctcaaqq 300 ttgctgacat ggtgaaaaca ggagtcataa tgaacataat tggagtcttc tgtgtgtttt 360 tggctgtcaa cacctgggga cgggccatat ttgacttgga tcatttccct gactqqcta 420 atgligacaca tattgagact taggaagage cacaagacca cacacacage cettaccete 480 ctcaqqacta ccgaaccttc tggcacacct tgtacagagt tttggggttc acaccccaaa 540 atgacccaac gatgtecaca caccaccaaa acccagccaa tgggccacet etteetecaa 600 gcccagatgc agagatggtc atgggcagct ggagggtagg ctcagaaatg aagggaaccc 660 ctcagtgggc tgctggaccc atctttccca agccttgcca ttatctctgt gagggaggcc 720 aggtagcega gggatcagga tgcaggctgc tgtaccegct ctgcctcaag catccccac 780 acagggetet ggtitteaet egettegtee tagatagtti aaaigggaat cagateecet 840 ggttgagagc taagacaacc acctaccagt gcccatgtcc cttccagctc accttqagca 900 geetcagate atetetgtea etetggaagg gacaccecag ecagggaegg aatgeetggt 960 cttgagcaac ctcccactgc tggagtgcga gtgggaatca gagcctcctg aagcctctgg 1020 gaactectee tgtggccace accaaaggat gaggaatetg agttgccaae ttcaggacga 1080 cacciqqcit qccacccaca qtqcaccaca qqccaaccta cqcccttcat cacttqqttc 1140 tqttttaatc qactqqcccc ctqtcccacc tctccaqtqa qcctccttca actccttqqt 1200 cccctgttgt ctgggtcaac atttgccgag acgccttggc tggcaccctc tggggtcccc 1260 cttttctccc aggcaggtca tcttttctgg gagatgcttc ccctgccatc cccaaatagc 1320 taggatcaca ctccaagtat gggcagtgat ggcgctctgg ggaccacagt gggctatcta 1380 ggtcctccct cacctgaggc ccagagtgga cacagctgtt aatttccact ggctatgcca 1440 cttcaqaqtc tttcatqcca qcgtttgagc tcctctqqgt aaaatcttcc ctttqttqac 1500 tggccttcac agccatggct ggtgacaaca gaggatcgtt gagattgagc agcgcttggt 1560 gateteteag caaacaacce etgecegtgg gecaatetac ttgaagttac teggacaaag 1620 accccaaagt ggggcaacaa ctccagagag gctgtgggaa tcttcagaac cccctgtaa qaqacaqaca tqaqaqacaa qcatcttctt tcccccqcaa qtccatttta tttccttctt 1740 qtqctqctct qqaaqacaqq caqtaqcaaa qaqatqaqct cctqqatqqc attttccaqq 1800 gcaggagaaa gtatgagagc ctcaggaaac cccatcaagg accgagtatg tgtctggttc 1860 cttqqqtqqq acqattcctq accacactqt ccaqctcttq ctctcattaa atqctctqtc 1920 tecegeggaa agetee 1936

<210> 449 <211> 354 <212> DNA

<213> Homo sapiens

c400> 449
ggacacgaget ggaaaacaat tggetteaac atgagaaagc teetacagaa gaagggaaaa 60
aagagetget ggecetaagt aaegegaace eetegetget ggageggac tgtgeetace 120
tetaagecaa gateactgaa tgageggaca etaggetettaa getegaceca 184
teecatagg aegegetact actetgetge atgegeteta eacecteage tgteggetet 240
gagetaece eeteaatgte atgeggeete ettecatage geetteete geegetgete 330
agtaatcogg gttaggaage etteggaete aegegeete tecagagate ogee 334

```
<210> 450
<211> 1073
<212> DNA
```

<213> Homo sapiens

<400> 450 ggaaacatca totacatgta catgcagcca ggagccaggt ottoccagga ccagggcaag 60 tteetcaege tettetacaa cattgteace ceceteetca atcetetcat etacaecete 120 agaaacagag aggtgaaggg ggcactggga aggttgcttc tggggaagag agagctagga 180 aaggagtaaa ggcatctcca cctgacttca cctccatcca gggccactgg cagcatctgg 240 aacggctgaa ttccagctga tattagccca cgactcccaa cttgcctttt tctggacttt 300 tgtgaggetg tttcagttct gacattatgt gtttttqttq ttqctcttaa aattgagacg 360 gggteteact etgteaceta gggtggagtg cagtggtgee accatagete ettegactat 420 tgggettaag cgatcetece ceaceteage ettecaagta actgggacta caggtgtgca 480 teactggeag tgggaattgt ggettttetg tettetatgg agaeggggte ttgeetgtgt 540 tgccccaggc tggtcccaaa ccccctggcc tcatgtgatc ctcctgccat ggcctcctaa 600 agttctggga ttacaagtgt gagtcactgt gactggccaa cattatgtga tttatgtgtg 660 aacctatata acacaaatca toocccaaaa coccatootg gatotgtaaa gcagotgcca 720 aagaatgaag tgagagaaac agttgtaaag atgagtttcc caccctactt atacccagag 780 tgcctaagag gaaatcaact cttcctcaat cagagetttg cetttgtttg ttgttgtttg 840 cctttaaagt ctaacacacc tgacatgttt cagtcagaat gaccccaaat gcatcactgt 900 totocacgtg gtoccaagtg cotototgtt tagggccatc aaatcatgga atgcagcaca 960 gtttgatatt ttctatattc ccaattccta cccaaacctt ttcatgaaat cqtagaqttt 1020 gttttaccct ttatctggtg taagattctg cataaaccaa gaagtgaacc tqt 1073

<210> 451 <211> 2674 <212> DNA

<213> Homo sapiens

<400> 451

gegeattgae ecctagaaca gegetegaat tgeegegteg acceaegegt gegaacecae acaatggcca gogataccag cagcotggtg cagtoccata ottacaagaa gogagagcog 120 geogacgige cetateagae igggeagete cacceegeea teegggigge agaceteeti 180 cagcacatca cacagatgaa gtgtgcggag ggctacggct tcaaggagga atacgagagc 240 ttctttgaag ggcagtctgc accatgggac tcggctaaga aagatgagaa cagaatgaag 300 aacagatacg ggaatatcat tgcatacgat catteeegag tgaggetgca gacaatagaa 360 ggagacacaa actcagacta tatcaatggc aattatatcg atggttatca tcgacccaat 420 cattacattg ctacccaagg gccaatgcag gaaaccatct atgacttctg gaggatggtg 480 tggcacgaaa acactgcaag tatcatcatg gtgaccaatc ttgtggaagt gggaagggtc 540 aaatgetgea aataetggee agatgacaca gagatatata aagacattaa agttaceeta 600 atagaaacag aactactggc agaatatgtg ataagaacat ttgctgttga aaagagaggt 660 gtgcatgaaa tccgagagat cagacagttt cacttcactg gctggccgga tcatggggtc 720 cectaceatg ecaceggeet getgggatte gtgeggeaag teaagteeaa gageeegee 780 agtgcaggcc cactggtggt gcactgcagt gctggtgcag ggaggactgg ctgtttcatc 840 gtcattgata tcatgttgga catggccgaa agggaagggg tcgtagacat ctacaactgc 900 gtcagggagc tgcggtcacg gagggtgaac atggtgcaaa cagaggagca gtatgtgttt 960 atccacgatg cgatcctgga agcctgtctt tgtggggaca cctctgtgcc tgcttcccaa gttaggtctc tgtattatga catgaacaaa ctggatccac agacaaactc aagccagatt 1080 aaagaggaat teeggaeget aaacatggtg acaecaaege tgegagtaga ggaetgeage 1140 atcgcactgt tgccccggaa ccatgagaaa aaccggtgca tggacatcct gcccccagac 1200 egetgeetge cetteeteat caccategat ggggagagea geaactacat caatgetgee 1260 ctcatggaca gctataaaca gccttcagct tttatagtca cccagcatec tttgccaaac 1320 acagtgaaag acttttggag actggteetg gattatcact geacateegt agttatgeta 1380 aatgatgtgg atcctgccca gttgtgtcca cagtactggc cagaaaacgg agtacacaga 7440 cacggeecca tecaggtgga atttgtetet getgaeetgg aagaggaeat cateageagg 1500

atattccgca	tttacaatgc	cgccagaccc	caagatggat	atcggatggt	gcagcaattc	1560
cagttcctgg	gctggccgat	gtacagggac	acaccagtgt	ctaagcgctc	cttcttgaag	1620
ctcattcgcc	aggtggacaa	gtggcaagag	gaatacaatg	gcggggaagg	ccqcaccqtt	1680
gtgcactgct	tgaacggggg	aggccgcagt	gggacgttct	gcgccatcag	categtatgt	1740
gagatgetec	ggcaccagag	aaccgtggat	gtctttcacg	ctgtgaagac	actgaggaac	1800
aacaagccca	acatggtcga	cctcctggat	cagtacaagt	tetgetacga	gataacccta	1860
gaatacttga	attctggctg	atggtgtaaa	cagctctgca	aacaatccct	ttcataccac	1920
aaagccaaga	cgttccatgg	tatttgtgca	aaagagatga	agacttctca	atatgettat	1980
tttgctttgc	ataattggct	ctttttaaga	gcccaagaaa	gtgtttctaa	aattgcttgc	2040
actgcccaat	cccagtaatg	ctgctgcctg	acagaaacac	acacacagee	acagttgcca	21,00
aatcccgtac	tccttgccac	cggcttccta	gagcagcgta	gacagetggt	aaactgaaga	2160
gcacaactat	attcttatga	aggaatttgt	acctttgggg	tattattttg	tggcccgtga	2220
ccctcgttat	tgttacagct	gagtgtatgt	ttttgttctg	tggagaatgc	tatetggcat	2280
tatggtaata	tattatttta	ggtaatattt	gtactttaac	atgttgcata	atatatactt	2340
atgtagcttt	ccaggactaa	cagataaatg	tgtaatgaac	aaagatatgt	tqtatqaqtc	2400
gtcgtttctg	tcagatttgt	attgtttcca	agggaaaagc	ttgggggagg	actcaqttca	2460
caaaatgcaa	aactcaacga	tcagattcac	ggacccagag	cttttccatq	totttatatt	2520
gtaaatattt	ttgatttcat	cgaaattatt	tattcattaa	aagaaatttt	tgtgaagcac	2580
agtgagtgac	aatcatttt	cttaaggcct	ggaaacgatt	ttctgtatga	tqttacttta	2640
tgtgaattct	catctcaata	aatgatgacc	cgtg	- 3	-	2674

<210> 452

<211> 601 <212> DNA

<213> Homo sapiens

120

180

240

300

360

420

480

540

600

601

<210> 453 <211> 474

<212> DNA

<213> Homo sapiens

<400> 453
cgacccacgc gtgcgggatc ctatcgaaaa ggattggtgc gactgggcca tgattagcag
gtaaggggcag tgatggaggg tggctcaggc cagggggtgg acctgctcat tgcaggtaga
120
ccctgagtag agatggggca ctcttctccc tgggtccac ccctctctca ctcaagtcct
180

cttctgcccc	taggccttat	agcaccctgc	gagattgcct	ggagcacttt	gcagagttgt	240
ttgacctggg	cttccccaat	cccttggcag	agaggatcat	ctttgagact	caccagatee	300
actttgccaa	ctgctccctg	gggcagccca	ccttctctga	cccccagag	gatgtactcc	360
tggccatgat	catagccccc	atctgcctca	teceetteet	catcactctt	gtagtatgga	420
ggagtaaaga	cagtgaggcc	caggcctaag	gggccacgag	cttctcacaa	ccat	474

<400> 454

ttttttttt ttatatttaa aaattaattt aatgettgge taaatettaa ttacatatat 60 aattatcaaa cgatagtoot taatttocaa aaaaattoot ottttgaaaa tocagaatca 120 gaaagcataa acttttaaac caagttcccc tgaatattta caatqtgqta taaacattat 180 240 aqaagaccat qgatattaaa ttgcctgggg tgtggctaat caqcaaqqcq tattctttat tgcatattta actcacatat gtgggatttt aaatatgaca gactactaaa attcaaatgc 300 atgtatctgc aagctgggca gggagtaaaa tcatgaatga gacaggacgg tcagcccaaa 360 accatgoaat taggttgtgg gtttattatt ttcaaaagtg aaatttctat gttccatttg 420 aaactatqtt qcatattcat ttaqcattca cattaaaccc acatttqact ctaacqctqa 480 ttcaaqqaaq aaaqttcaac attcactcaa tqactaaqtc cacaactcaa ctctcaatqt 540 taaggcagca cagctacagt gatagcaacg ctaaccaaaa ggtaatgaac atttagtcac 600 ttgccagccc ttttgttaca acagtgtagt aatttcccta agacaatttg ctaccggata 660 attttctqct qttaaaaggc ttcctctgtg gaaaaacacc acaaatttcc agtgtgaaag 720 taagtccatg gtggtataaa tatatatatg cataattaca caatttacac tgcacacatc 780 gtttacaggq gacaattaac tgagaqggtt aatttaaatq accatacaaa atacttcagt 840 aaacaaagta tgacaggcag taaagaaaac attcatagac teetagaaat aatetgaatt 900 cotttoatto tqaagaaata toatttaaqq acacaqtatt qaatataatq ttttttgtat 960 taaaacaaqa attqctattt tacaqtttaa qaaactttac atatatacaa aatttacaca 1020 ttgggaatgg taatcaagca aataggtttt tcagtctcat agatctattt tccttcgatc 1080 asagacttas attetttese attetegetes ettegeases acatagest atccasaget 1140 cqaacacttq caaqqaqttt tactatctqt tttatqtttt cccttqcatt tctttttcc 1200 acatcagaac acccgatact atttctataa attgtatccg ctaagtgtac aaggtatcgg 1260 caaaagtttt ctaactgaga aatagteett teteetttea gatteatgaa ceattgtttg 1320 gggaaacaat tgattacatt ttgggctttt ttgatgctgt catctccata ttctgaattc 1380 tgaaaagcca tgagaatata tcgatttaat aaaccatcta ttgataactc ttgcagagtt 1440 ttatttgaga aaatgccata ccactgaaga aaattgccta acagcttaac tgaagaccaa 1500 aactgtcgtt gaaaaaacaa gtaaggccca gaatttttat tttctaagac atttttggga tataaqqqca taaatacatc atcatctaaa qttcttctca ttctcaataa aaqtqccttt aggtatacct gtgtattttt attttctgca ttcactactg aaggatatcc attgattaat tttagtgtaa ttcccaccat tcttgaagtc tgtgttgtag aaaaagggtc ccacatattt 1740 teagetatea etgttagttt aggaagaate acetttteea eaatggtagg tagtagggea 1800 acatetacat catettttte ttgetetegt tetteaca 1838

<210> 455

<211> 1790

<212> DNA

<213> Homo sapiens

<400> 455 tgateegate ttgeacteeg teactgtgge tgactgcatt gteacattea ettggeggag gecaatitee tacaggtget ttcaggatca ggtcactgeg atggteteta aacaccatte 120 tgetttetet getetettgt etttaggage egggtgtggg etgagecetg eetqattgat 180 gctgccaagg aggagtacaa cggggtgata gaagaatttt tggcaacagg agagaagett 240 tttggacctt atgtttgggg aaggtatgac ttgctcttca tgccaccgtc ctttccattt 300 ggaggaatgg agaaccettg tetgacettt gtcaccccct qcctqctaqc tqqqqaccqc 360 tecttggcag atgtcatcat ccatgagate teccacagtt ggtttgggaa cctggtcacc 420 aacgccaact ggggtgaatt ctggctcaat gaaggtttca ccatgtacgc ccagaggagg 480 atetecacca teetetttgg egetgegtae acetgettgg aggetgeaae ggggeggget 540 ctgctgcgtc aacacatgga catcactgga gaggaaaacc cactcaacaa gctccgcgtg 600 aagattgaac caggogitga cooggacgac acctataatg agacccccta cgagaaaggt 660 ttctqctttg tctcatacct ggcccacttg gtgggtgatc aggatcagtt tgacagtttt 720 ctcaaggcct atgtgcatga attcaaattc cgaagcatct tagccgatga ctttctggac 780 ttctacttgg aatatttccc tgagcttaag aaaaagagag tggatatcat tccaggtttt 840 gagtttgatc gatggctgaa tacccccggc tggcccccgt acctccctga tctctcccct 900 ggggactcac tcatgaagec tgctgaagag ctagcccaac tgtgggcagc cgaggagetg 960 gacatgaagg ccattgaagc cgtggccatc tctccctgga agacctacca gctggtctac 1020 ttcctggata agatecteca gaaateceet eteceteetg qgaatgtgaa aaaaettqqa 1080 gacacatace caagtatete aaatgeeegg aatgeagage teeggetgeg atggggeeaa 1140 atcgtcctta agaacgacca ccaggaagat ttctggaaag tgaaqqaqtt cctqcataac 1200 caggggaage agaagtatac actteegetg taccaegeaa tgatgggtgg cagtgaggtg 1260 geccagacce tegecaagga' gacttttgca tecacegeet eccageteca cageaatgtt 1320 gtcaactatg tccagcagat cgtggcaccc aagggcagtt agaggctcgt gtgcatggcc 1380 cotgectott caggetetec aggettteag aataattgtt tgtteecaaa tteetgttee 1440 ctgatcaact tcctggagtt tatatcccct caggataatc tattctctag cttaggtatc 1500 tgtgactett gggeetetge tetggtggga acttacttet etatageeca etgageeceg 1560 agacagagaa cetgeecaca geteteeceg etacaggetg caggeactge agggeaqeqq 1620 gtatteteet ceccacetaa gtetetggga agaagtggag aggactgatg etettettt 1680 ttetetttet gteettttte ttgetgattt tatgeaaagg getggeatte tgattgttet 1740 1790

```
<210> 456
<211> 1293
<212> DNA
<213> Homo sapiens
<220>
<221> misc feature
<222> (1)...(1293)
<223> n = a.t.c or q
```

<400> 456

```
tgcgcaagcg ggagttccgg ctggagaccc gtgctctggg ccggcgcctt caccatggcc
                                                                     60
teggeagage tggactacac categagate ceggateage cetgetggag ceagaagaac
                                                                    120
agecceagee caggigggaa ggaggeagaa aeteggeage eigiggigat teletiggge
                                                                    180
tggggtggct gcaaggacaa gaaccttgcc aagtacagtg ccatctacca caaaaqqqqc
                                                                    240
tgcatcgtaa tccgatacac agccccgtgg cacatggtct tcttctccga gtcactgggt
                                                                    300
atcccttcae ttcgtgtttt ggcccagaag ctqctcqaqc tgctctttqa ttatqaqatt
                                                                    360
gagaaggage cectgetett ceatgtette agcaacggtg gegteatget gtacegetae
                                                                    420
gtgctggagc tcctgcagac ccgtcgcttc tgccgcctgc gtgtggtggg caccatcttt
                                                                    480
gacagogete ctggtgacag caacetggta ggggetetge gggccctgge agecateetg
                                                                    540
gagegeeggg cegecatget gegeetgttg etgetggtgg cetttgeeet ggtggtegte
                                                                    600
ctgttccacg tcctgcttgc tcccatcaca gccctcttcc acacccactt ctatgacagg
                                                                    660
ctacaggacg cgggctctcg ctggcccgag ctctacctct actcgagggc tgacqaagta
                                                                    720
```

gtcctggcca	gagacataga	acgcatggtg	gaggeaegee	tggcacgccg	ggtcctggcg	780
egttetgtgg	atttcgtgtc	atetgeacae	gtcagccacc	tccgtgacta	ccctacttac	840
tacacaagcc	tetgtgtega	cttcatgcgc	aaactgggtc	cgctgctgaa	ggccattgct	900
ccatctcacc	tetgetecea	gaaaataaat	gccctgaaac	cctccccca	naacctgcaa	960
tetgteggge	actetteteg	ttcaactccc	tgtagccctt	tgggactttg	cggtccccta	1020
agtagaaaat	tcctatgggc	ctgtctcctg	ggggcctctg	tetgetggtg	gtctgcttac	1080
cacagaatcc	taaggggcag	gagtgcctgg	geatgtgtet	gtgggagcct	tgcagtcagt	1140
tgtgtttgga	caagtgcaac	agtcaggctg	ctgattcctg	tggcatgcag	gctgtagagg	1200
ttgacaaatg	gaggggggtg	ttgagggtga	gccctagttg	attttttaaa	atttaaactc	1260
tggtaagaac	atttaatatg	aaaaaaaaa	aaa			1293

<210> 457 <211> 1155 <212> DNA <213> Homo sapiens

<400> 457 cccacgogtc egggacagac teccatecac tggggtcagg gaceggaaaq gegacaaacc 60 ctggaaggag teaggtggca gegtggagge ecceaggatg gggtteacce accegeeggg 120 ccacctctct gggtqccaga gcagcctggc cagtggtgag acggggacag gctctqctqa 180 cccgccaggg ggaccccgcc ccgggctgac ccgaagggcc ccggtaaaag acacacctgg 240 acgagococc gotgotgacg cagotocago aggococtec agotgoctgg gotgaggtgt 300 ctggtgcctg gaacagactt ccctgtggag gattcctgcc agaccctgcc cggctcctcc 360 ctgaccggtc cttgtgccct caccagacac cctgttggcc atgactcaac aaaccagtgt 420 tgggageegt etgeeteeec ageteagtge etttetgeac ecettetete etggggaget 480 gtetgeatee gecaceceet ceaaceactg coetcagece cegacettat ttattacect 540 cocctcccac acccccaatc tacctggtga tgattttaag tttgcgcgtg tcttgggttg 600 ggctgggggg tttcccacat gcagtgtcag aggggccgcc cggtggggct atctccgttg 660 ctatattaat ggcaagacta aatgaaacct agggcacggc ctccgaagct gcgtgtggcc 720 ccttagaggt gagcatcaga gccagagcag tgagggggag actcacccac cctctccctc 780 tecetteage tetgggagge aggegeagtg ecceettee gtgggetgge ceaqqaeqe 840 gggtgaaacc tgggtctgtt tagtttcttt qgtttttqta tqtttgtttq tttttqacac 900 agtotogott tgttgcccag gctqqqqtqc aqtqqcacqa tcqcqqctca ctqcaacctc 960 cacctcocgq qctcaaqcqa ttctctcacc tcagcctcct gaqtagqtqq qattacaqat 1020 gcccqccacc acacccagtt aatttttgta tttttagaag agatggggtt tctccatgtt 1080 ggccaggetg gtcttgaact cctggtctca agtgatccgc ccgcctcggc ctcccaaagt 1140 gctgggatta caggg 1155

<210> 458 <211> 1297 <212> DNA <213> Homo sapiens

<400> 458
ggacacaatic caatytcagt atctgcaggc tgaagtacag acagttacac tgaaattgcg 60
tatgctctga ggaatgacac taaattcgct tccaggaaaa ttactcaatt ttgtaagtaa 120
ttttcagttt tttttctcag ggatattttt caactttcac tttaattttc ttttagttgct 18
tagttgtaca ttttgagaatg gcaaatccat tggaacttgg ggaggcttag acactaaatt 240

agtattagaa	gtaaagggaa	cacacagcta	aaagttttac	tttaatcaca	aattcacaac	300
tagagatatc	atttgcatat	cttagaacgc	taaagacctg	ttaaaatttt	ttaaccaatc	360
agcaaaaaata	tgtgccccac	agatttctaa	tgttcataat	ttagaattta	tcacatataa	420
tatttattaa	tagtttattt	gcaaaattat	tattcttaaa	acacttcttt	ccaacacatt	480
tacaatgttc	atgtgtttta	aagaaaaaaa	ccaccctcat	ttaaaaatgt	actactgact	540
ttaatgtgtg	gttataccag	tgccaccaaa	ttagaaaaga	aaaagaaaca	tacagctgta	600
	agttactact					660
cacgetttte	taccacttct	cagtcattgt	cagaaccatt	tggaggtaag	aaaaccaatg	720
catcattgaa	aatatggccc	aaatgcccta	aggcggtata	ccccatacat	catcacatgo	780
	gagtcagtcc					840
acctggttgg	ggtgataagt	cattgcctct	ttaatagaaa	gcccaacaga	tttggtatta	900
aatacatctt	ttccatcagc	atcttctgca	ttttctgcaa	atactccagc	atatttcagg	960
caaactgcta	gctgtttatc	ttcagatatc	ttccaaatca	tecctccctg	ttcaggacac	1020
ttttctggga	tattgagaag	gctgttaagt	cttttcattg	attctacact	taagacaatt	1080
cctccttcca	tacccacata	ttcaaggtct	ccagatttta	tagtgtggcc	tagatagaaa	1140
ggctgtgatg	gatccttttt	taacaaaaaa	tactttaggt	tttcaatgat	agcaaacgta	1200
	caaggaagaa			acttacaaat	acgcctttga	1260
taagtataga	gaccaataca	actggttctt	ccttgca			1297

<210> 459

<211> 777 <212> DNA

<213> Homo sapiens

<400> 459

ttttttttt	ttctgaagaa	gcatttatta	gcatgcaggg	cccatgctag	aggctcctta	60
tttccagggc	aaggccagcg	agacagagcc	cattgctcag	gacgcagccc	agattgcaaa	120
gagaggacag	cccatggtag	cggaagaaat	tctggcggag	agcactgtac	ttggggtcct	180
tetetegeag	ctggcggtag	ggatcgggac	cctggtggct	gcctggtacc	tccccaccca	240
ggcctcgctc	cttctccacg	gtttgcaggg	cccacatggc	agctgtggtg	cggggttcca	300
gccagcgggc	gttgacagtg	gccagcgtaa	ggctcaggaa	cagcaggtaa	agctggctgg	360
cctcccagaa	tgtgagctga	gcccaagcat	gctgtgaagc	caagatgcag	aggttgatga	420
aggcacagcc	catggagatg	tggaagtaga	aggggaagag	tttgctctgc	actagtccga	480
aggtatgtcg	gggaaggett	cggaaaagca	ggaagcctga	gacgaaggtc	acccacattt	540
gcatgcccca	ggcacctgac	aagaccagta	gatggaccat	cttaatcagg	cctcctaggt	600
tecegeette	ctccatcttg	cagtccgtta	ggaaccggga	cctcaatccg	cagcacccgg	660
attccgagaa	cagaggcgtc	ggggccaaat	gggctgaatc	tggtacctca	ctcccacgcc	720
cccgggtgga	cagcgaccct	cctcggccgc	gtcccctcgt	gggtttcccc	tegtgee	777

<210> 460 <211> 859

<212> DNA

<213> Homo sapiens

<400> 460

cctgtggaag aagaqaagaa tggagagcat ggctggtcg atgttgcggt tgcaqatgcc 60 ctcgttgatc aggtagcagg ggtcccgcag accggctct agcgaatcct gccgcattat 120 gctgttgagc ttgtcggtat tgaggttctc aaagaccagc ttttcctgca gctgccgaaa 180

```
attactcact qtagqqctqc coqqqttqtt qttctccccq ctqctqcctc qctqqqqcc
acteegatgg geeaggteea ggeageagtt geageagteg aggeegaeag gtgageggea
360
ggcggctggc aggtgcgcgc ccaccgagct ggcctgaggg gactccaggg tgcctggaaa
                                                              420
agacaagetg tgaggaaaag agttggaaat tagegeetaa ageeageeac etteggeteg
                                                              480
qcccccttct ggctgtactg ctccqqqtgc qaataqaaac aqctqqacaa acaqctccqa
                                                              540
geggateett egggeteact tectectett cetecttete etececetee tettgaggee
                                                              600
gggggccgcc cccctgaggt gccacacgcg gccccagcgc agtcccaagt ttcccaagtg
                                                              550
tgagcggga ttgggggga cctgtggagg caggaagggc gggcagcagg gcagagggag
                                                              720
agecagges egecetteet cectectee thigeteet cectecegg thigeaget
                                                              780
cteaggetet egggeteece tgggetgtga eggetgageg gtggeaggag etgagagega
                                                              840
gtgagctacg aaatcgtcq
                                                              859
```

<210> 461 <211> 1975 <212> DNA

<213> Homo sapiens

<400> 461 agaaatcago tttottoaca gaagtcagtg cogtgggtac coattttaaa atcootgoca 60 ctttgggcta tcgtagttgc acacttttct tacaactgga ctttttatac tttattgaca 120 ttattgccta cttatatgaa ggagatccta aggttcaatg ttcaagagaa tgggttttta 180 tottcattgc cttatttagg ctcttggtta tgtatgatcc tgtctggtca agctgctgac 240 aatttaaggg caaaatggaa tttttcaact ttatgtgttc gcagaatttt tagccttata 300 ggaatgattg gacctgcagt attectggta getgetgget teattggetg tgattattet 360 ttggccgttg ctttcctaac tatatcaaca acactgggag gcttttgctc ttctggattt 420 agcatcaacc atctggatat tgctccttcg tatgctggta tcctcctggg catcacaaat 480 acatttgcca ctattccagg aatggttggg cccgtcattg ctaaaagtct gacccctgat 540 atggggatet egetecateg eccaggetgg agtgcagtgg egtgatettg gttcaetgca 600 acttccatet cccaggttca agtgattctc ctacctcage ctcctgagta tctgggatta 660 caggogocog tcaccacgoc cagctaattt tttgtatttt tagtagagat ggggtttcac 720 catgotggcc aggotggtct cgaactcotg atctoatgat togcccacct cagcccccca 780 840 aagtgctggg attacaggca tgagccaccg tgcccggccg cttcgcattt ttcttttgca ggttgcatgc cagccaatat tcctctgtgc tgggaaggga aagtttgagg atgtatcaag 900 accatagoag tggatotoac tgotottgcc tactoagggc tttatotaca cattgatago 960 coctcagagg aaaggcacca googaagagt cgacactggc totgggottg gatgctgcct 1020 ctgataaacg ctgggcactc tgaccctgaa gccagggagg gagtgcttgg cagctgcctg 1080 qqcacactcc cctcaqtcca qttqccaqqc qaaattatac aqtqqatqqc aqctccacaq 1140 agatgctaaa gtttgaggtc taagtgtcag agagagctga caatttttat gaggaaagtg 1200 aacaacaaca ggtgtttatc agtacctgag aattatcatc tagtttaatt aagcaaaggt 1260 atcaggaggt ctgtttcagc tcattccctt tagtatggcc ctaaaaaatc aacagaactg 1320 tectactica tgttgcccga ctagcaggca gqtatqtgaa cctaaagtag aagtectage 1380 ttacatatta ttcataatta aacacagttc attttattat tctggcaact agtgatattt 1440 catgattata ggccttaaaa atctaataca agtacaatta aaaaaagaca tagaatgctt acacaataca qaaqqcactt tqaqqttaca tqataaataa aaatacatta ataqaqqcaq gattatttat tggttccttc agtgtctgtg tccatggtga tcattgagag cccagttttg 1620 tacttcacct ttggcgaaat agtgttaaag aaaatggcac caaaaacatt aatagcagca 1680 gcaatataga acacggtttg ccatteteca acagtgttat caggggtcag acttttagca 1740 atgacqggcc caaccattec tqqaataqtq qcaaatqtat ttqtqatqcc caqqaqqata 1800 ccaqcatacq aaqqaqcaat atccaqatqq ttqatqctaa atccaqaaqa qcaaaaqcct 1860 cocaqtqttq ttqatataqt taqqaaaqca acqqccaaaq aataatcaca qccaatqaaq 1920 ccagcageta ccaggaatae tgcaggteea atcatteeta taaggetaaa aatte 1975

<210>	462	
<211>	716	
<212>	DNA	
<213>	Homo	sapien

<400> 462

actgatagec etegaaaceg ttgaggacec teegggacga cecaegegte egcacacagt 60 gggcatccag gatctccccg aggtagcctg agccgccacc ccagctccca gctggcaggt 120 cctggggtgg agggggtga aggcacccag aaacctcggg actacatcat ccttgccatc 180 ctgtcctqct tctqccccat gtgqcctqtc aacatcqtqq ccttcqctta tqctgtcatg 240 teceggaaca geetgeagea gggggaegtg gaeggggeee agegtetggg eegggtagee 300 aagetettaa geategtgge getggtgggg ggagteetea teateatege eteetgegte 360 atcaacttag gogtgtataa gtgaggggot otgoocogca toccaagact tttottootg 420 ttgggagetg cettgggece attecetece etggggggag cecaactgat ggeeetggee 480 ccacccctaa ggaccaaggg agcctgagcg gccttgttta cagcttctgt cctgctcctg 540 catctttgcc agggtccttt tgccaactgt aagggccttg cctcattccc tqqcaatqqt 600 tecaacetee etgeactaat geetgeatee eeteeggeet ettggeeece tateeetgea 660 cttctgggaa acctccctgg cactctggga aacctccctg gaacaacttc ccaaat 716

<210> 463 <211> 595 <212> DNA <213> Homo sapiens

<400> 463

ctttttttct ttttttata aaacatgtca catcttgatg cagttgatgt caagtgtgct 60 taagtcatta tgaatcaaga gactaacaat agtggctgca gaaacaggtt tgttgtctgt 120 acaaagactt caggtaaatt atagtacttc catgttagct gtgcatgtcc accacgcttt 180 gtotgtaact cgagtagaaa aagatgttgt gttttaatta atcattcctt acaattcaag 240 atgaactcca catatttaag aattcttggc tgaaagaaaa gtcttcaaga tactggatgc 300 ctctcaccac tttgacaata aacacacaag aaaaccattg tgtaaggcac tcaaaaggtt 360 cttatcaatc acgagagatc agtcacactg acattcattc ccatgccagg actcacgtaa 420 gggacagcat qcactgcttt qggaaattct qqaqtcataa cacqtccatt ttctccagta 480 cttcctgtaa ttgacagcet tgccttgttc ctcatggcat cattcaaggt catcttaaat 540 gagagaggag ggaaagaaag aaaaagagat catacgttat ggttttcaaa tgcat 595

<211> 2017 <212> DNA <213> Homo sapiens

<210> 464

aaaccaataa	cgaaaaatag	ttcttcaggt	tetteteetg	gaaaggcgga	ggacacacca	120
aactgcactg	gccctgtcag	gggacacggc	accetegtgg	gaccaggctc	agccctcggg	180
gtggcacgag	gtcctgcagg	ctgcaggacc	ctcacactcc	ageceegtet	ggtgacccaa	240
cccgggcccg	tggtgcatgc	tggggaaggc	cactggccgg	cccctgggct	teggeteetg	300
aggaggcatg	gccccacacc	ctgcccggcc	ataaatatat	acagattcct	gggcatecag	360
ggcaccagga	ccgacgcaga	gctggggtcc	tgtccctaag	cctgtggcac	agcgactctt	420
gacatgggag	ccagggagct	gggaccgccg	cacccctccc	ctgcctccct	cctggggtca	480
ccaccctcag	gcggctgcca	gctggcctag	gacgcggcgg	aactgctggg	tgctgtggcc	540
cageteettg	acceteteca	ccatgtcctg	ggccgcggaa	ggcgatgggt	actgcaaggc	600
agcggccttg	gtggtggcca	cgatgccgcg	caggaggtcg	cacagcaggt	tgctgtagtg	660
ggtcacctgg	otgcgcacgt	cagcagcctt	ggcctgccgt	gacagtgtgt	ccccgatgaa	720
	tgggcgctga					780
ctggttggtg	gccacggcgg	taaagaaggc	gtccacggcg	ttggtcagtg	tggtcaggtt	840
ggcctcacac	tgctccaggt	agaagagcag	cagctgccgg	tccgagggcc	ccaggccgcc	900
	ggggccaggg					960
ccgtgacacc	tcctgttcca	gtcgttcaaa	ctgcttcagc	tgctgcaact	ccagctgget	1020
cttgccctgc	cgcgtgatgc	tgcccttttc	cagcagetee	ttctgggtct	tctcaaactc	1080
ctccttcccc	tgtaggtgga	cgtagtcata	gtcctccatc	cagcccccct	cgctgttctc	1140
	tctggcgagt					1200
	ctggtcttgt					1260
cggggcagtg	gccttggtcc	gtctgaagag	cagtgaggca	ttgccgtgca	ggaaggaggc	1320
cagctgcttg	gegteetegg	gcacagcccg	cgagcaggcc	accagccggt	ccaggtcctc	1380
	ccagagcctc					1440
	tcctccatct					1500
	gcagcattgc					1560
actctggacg	geggecacag	cagcctgcag	gtcctgcacc	ageggeteet	gtggctcaga	1620
	cageteecag					1680
	acaccctgct					1740
	cccggccctg					1800
	gaggeegaca					1860
	tacacaccac					1920
	ggcacatcgt			cgccgcaagc	cagggggcac	1980
gtcgtagagg	tcaggagccg	ggggcggcac	gtcatcc			2017

<210> 465 <211> 1575

<212> DNA

<213> Homo sapiens

<400> 465 ggatttcgtt tcctccggct gggagtggcc gctctaggca gcgttgaggt cgcggggttg 60 aggggggttg tgaaaggaga geggeetete etetatggte aeggggeegg ggeaegette 120 coccactotg tottgttact tooggtageg aagcetotee etetteetet geteeegegg 180 ggtctgtgct gagaataatg gcccggttgg cccgggacga gtggaatgat taatgatgtt 240 ttgcagcagt tttctacgtc tgaaattttt tatgtctctg gaacccagaa tttgctaaga 300 gatggaggaa cctcagaaaa gctatgtgaa cacaatggac cttgagagag atgaacctct 360 caaaagcacc ggccctcaga tttctgttag tgaattttct tgccactgct gctacgacat 420 cctggttaac cccaccacct tgaactgtgg gcacagette tgeegteact geettgettt 480 atggtgggca tcttcaaaga aaacagaatg tccagaatgc agagaaaaat gggaaggttt 540 ccccaaagtc agtattctcc tcagggatgc cattgaaaag ttatttcctg atgccattag 600 actgagattt gaagacattc agcagaataa tgacatagtc caaagtcttg cagcctttca 660 gaaatatggg aatgatcaga ttootttago tootaacaca ggoogagoga atcagcagat 720 gggaggggga ttetttteeg gtgtgeteae agetttaaet ggagtggeag tggteetget 780 cgtctatcac tggagcagca gggaatctga acacgacctc ctggtccaca aggctgtggc 840

900

960

caaatggacg gcggaagaag ttgtcctctg gctggagcag ctgggccctt gggcatctct

ttacagggaa aggtttttat ctgaacgagt aaatggaagg ttgcttttaa ctttgacaga

WO 01/53455	;				PCT/US00	/35017
catggagcta taaggctgtg	gaacgtgtca aacccaggca	aagcattagg ggtccctgtt	cgtgaagccc cctgctatac	agccacagga ccccagaatc gccctcaaga	tctgggaata	1020 1080 1140 1200
caccatetge	cctctgcaag	aagacagctc	tggggaggac	atcgtcacca gtcaaatact	agcttctgga	1260
ataccagctg	attgctgagt	ttgcttggga	ctggttggag	gtccattact	ggacatcacg	1380
ctggtcgaga	agtgaactga	agtaagtatg	ttttaatggt	tgtcacaaca acacttgaaa	ggggatggga	1500 1560
atccacccag		aagutteett		ucaccegaaa	Laaacccccc	1575
<210> <211> <212> <213>	493	ns				
<400>						
tcttgattct	cgagttagag	aggtgatcaa	tagaaatctg	ctatcaccaa ttggatccca	atcctcacat	60 120
				agagattett getggetett		180 240
ttaatgttca	tttaaaaaca	atcattttgg	agggctgaga	tgggaaataa cattcctcag	aagtagttaa	300 360
aaacacaacc	gttatggtct	ttgtctccat	ttttatcaag	gttttccatg	gttaagtttg	420
gagaaaatac tactttgcaa		aatgaattgc	caaattgttt	gttttattca	agactcaatc	480 493
<210> <211> <212> <213>	1572	ns				
<400>						
cttgtactac aatggagggc	agtcaagatg aaaggagatg	aggagtccaa tgatgtccac	aataatgatc tgcctgtgqa	agtgactttg actccaggct	gattgtcaaa atgtcgctcc	60 120
tgaagtcctc	gcccagaaac	cttacagcaa	agccgttgac	tgctggtcca	teggagtgat	180
				gaaaatgact tactgggatg		240 300
ctctgcaaaa	gacttcattc	ggaacctgat	ggagaaggac	ccgaataaaa	gatacacgtg	360
cgagtccgtc	agegeecaga	tccqqaaaaa	tggtgacaca ctttgccaag	gccctcaaca agcaaatgga	gacaagcatt	420 480
taatgccacg	gccgtcgtca	gacatatgag	aaaactacac	ctcggcagca	gcctggacag	540

ttcaaatgca agtgtttcga gcagcctcag tttggccagc caaaaagact gtgcgtctgg

caccttccac gctctgtagt ttcatttctt cttcgtcggg ggtctcagga gttggagccg

ageggagace caggeceace actgtgacgg cagtgeacte tggaagcaag tgactggeee

tggaggtggg geceggggte ggggetgggg aaggggagee ceagggtege cagageegeg

agecaeteca gegagaecec acettgeatg gtgeceette etgeatagga etggaagaec

600

660

720

780

840

gaagttttt	tatggccata	ttttctactg	caattctgaa	gtgttcattt	ctcacaaact	900
gtactgactc	gaggggcgct	gatttcatag	gatctggtgc	tgtatatacg	aatcttgcaa	960
		tcttattcct				1020
		ggtgtgtttt				1080
actggattat	ttaaatattg	gtaaatattg	tgcattaggg	tttgtttttc	cttttaagaa	1140
gtatgtcctt	tgtatctcta	agttacatga	cctatatctt	ttcctcttta	atagtagttt	1200
tatgttaacc	tttaagagat	ttgtttttcc	tcaaaggaga	atttaaaggt	attttttaa	1260
aattctaata	agaggatcag	ccgggtgcaa	tgactcatgc	ctgtaatccc	agcacgttgg	1320
		acaaggtcag				1380
gtagattgct	ggctactaaa	aatacaaaaa	attagccggg	cgtggtggca	cacacctagt	1440
		gctgaggcag				1500
tgcagtgagc	tgagatcgtg	ccactgcact	ccagcctggg	tgacagagca	agactctgtc	1560
tcaaaaaaaa	aa					1572

<210> 468 <211> 1927

<212> DNA <213> Homo sapiens

<400> 468

```
oggacgogtg ggggagotgt gagtttogag gatttoatca aaggtottto cattttocto
cgggggacag tacaagaaaa actcaattgg gcatttaatc tgtatgacat aaataaagat
                                                                     120
ggctacatca ctaaagagga aatgcttgat ataatgaaag caatatacga tatgatgggt
                                                                     180
aaatgtacat atcctgtcct caaagaagat gctcccagac aacacgttga aacatttttt
                                                                     240
cagaaaatgg acaaaaataa agatggggtt gttaccatag atgagttcat tgaaaqctgc
                                                                     300
caaaaagatg aaaacataat gcgctccatg cagctctttg aaaatgtgat ttaacttgtc
                                                                     360
aaatagatcc tgaatccaac agacaaatgt gaactattct accaccctta aagttggagc
                                                                    420
taccactttt agcatagatt gctcagcttg acactgaagc atattatgca aacaagcttt
                                                                     480
gttttaatat aaagcaatcc ccaaaagatt tgagctttca gttataaatt tgcatccttt
                                                                     540
tcataatgcc actgagttca ggggatggtc taactcattt catactctgt gaatattcaa
                                                                     600
aagtaataga atctggcata tagttttatt ggttccttag ccatgggatt attgaggett
                                                                     660
tcacatatca gtgattttaa aatatcagtg ttttttgcta ctcatttgta tgtattcagt
                                                                    720
cctaggattt tgaatggttt tctaatatag tgacatctgc atttaatttc cagaaattaa
                                                                     780
attaattttc atgittgaat gotgtaattc catttaaatt ccatttatat actttaagga
                                                                     840
aacaagatta caacaattaa aaaaacacat agttccagtt tctatggcct tcccaccttc
                                                                    900
tgttagaaat tagttttatc tggcattttt aaacatttaa aaattattaa acatttaaaa
                                                                    950
attagtttat tatcagatat cagcatatgc ctaataaaac ttattttaat aagcatttaa
                                                                    1020
ttttccataa tatgttacag ccaaggcota tataataatt ttggatttgt tcaatctttc
                                                                  1080
ttacaggctg ttttctattg tatcaatcat tagtatcaat cattaagtgg aagttgaaga
                                                                    1140
aggcatcaaa caaaacaagg atqtttacag acatatgcaa agggtcagga tatctatcct
                                                                    1200
ccaqtatata gtaatgctta ataacaagta atcctaacag cattaaaggc caaatctgtc
                                                                    1260
ctetttcccc tgacttcctt acagcatgtt tatttatatt acaagccatt cagggacaaa
                                                                    1320
gaaagaaacc ttgactaccc cactgtctac taagaacaaa cagcaagcaa aattagcaag
                                                                   1380
caaaattcac tttgaaagca ccagtggttc cattacattg acaactacta ccaagattta
                                                                    1440
gtagaaaata agtgctcaac aactaatcca gattacagta tgatttagct catcataatt
                                                                    1500
cagattattt ttaatcatct tagccaaaac tgtaaagttg ccacattact aaagccacac
                                                                    1560
acategtece tgttttgtag aaatateaca aagaccaaga ggetacagaa ggaggaaatt
tgcaactgtc tttgcaacaa taaatcaggt atctattctg gtgtagagat aggatgttga
aagctgccct gctatcacca gtgtagaaat taagagtagt acaatacatg tacactgaaa
titgccatca cgtgtttgtg taaactcaat gtgcacattt tgtatttcaa aaagaaaaaa
taaaagcaaa ataaaatgtt aaaaaaaaaa aaaaggggcg gccgttttaa aggatccagt
tttacgaccg cgggctggca aggaaaaatt ttttttatgg ggccccctaa attcaattcc
                                                                   1920
cgggccg
                                                                   1927
```

<210> 469 <211> 1013 <212> DNA <213> Homo sapiens

<400> 469 cccctaggag ccctgaacac catacqccaq cttqqcacqa qqqqaqaaqt ctcqqtccta 60 taatgqccaq catqqcaqac aqaaacatqa aqttqttctc qqqqaqqqtq qtqccaqccc 120 aaqqqqaaqa aacctttqaa aactqqctqa cccaaqtcaa tqqcqtcctq ccaqattqqa 180 atatgtctga ggaggaaaag ctcaagcget tgatgaaaac cettagggge cetgecegeg 240 aggtcatgcg tgtgcttcag gcgaccaacc ctaacctaag tgtggcagat ttcttgcgag 300 ccatgaaatt ggtgtttggg gagtctgaaa gcagtgtgac tgcccatggt aaatttttta 360 acaccctaca agctcaaggg gagaaagcct ccctttatgt gatccgttta gaggtgcagc 420 tccagaacgc tattcaggca ggcattatag ctgagaaaga tgcaaaccgg actcgcttgc 480 agcagetect tttaggeggt gagetgagta gggaceteeg acteagaett aaggatttte 540 tcaggatgta tgcaaatgag caggagegge ttcccaactt tctggagtta atcaaaatgg 600 taagggagga agaggattgg gatgatgctt ttattaaacg gaagcgtcca aaaaggtctg 660 agtcaatggt ggagaggca gtcagecetg tggcatttca gggctcecca eegatagtga 720 teggeagtge tgactgeaat gtgatagaga tagatgatae ceteqaeqae teeqatgagg 780 atgtgatect ggtggagtet caggaccete caettecate etqqqqtqcc ecteceetca 840 gagacaggg cagaceteag gatgaagtge tggteattga tteececcae aatteeaggg 900 ctcagtttcc ttccaccagt ggtggttctg gctataagaa taacqqtcct qqqqaqatqc 960 gtagagccag gaagcgaaaa cacacaatcc qctqttcqta ttqtqqtqaq qaq 1013

<210> 470 <211> 1543 <212> DNA <213> Homo sapiens

<400> 470

ttttttttt ttaactttaa aactgeegte ttetgettta ttgacaggta aattgttcaa 60 agatettete acaattegat gattagtag gaggetgag acttacatta agagggtaga 120 aaccagaacc ccccaggtgc ccatccagca gaaggcccag gagggcagtg gggtggcagg 180 getaggeggt getgggecae teagtgeega ettggggaag tgeaegteet gaacageett 240 gccaagcagc cgaccggtgg gaggacaggg gaagcctggc ccaagctgtg gacaagctgt 300 gtetgeegee acagttaate acaageetet gacgacacag ggeeacagag etggteacte 360 aacatetggt acaaagggtg aggtgaaate cacgegcagg ggattgetgt geegtgggee 420 ggggccagtg tgcaggagtg tgttgggtgg gtctacgtga tcatacgqgc tactaatcac 480 540 tggggtatcc cagtggctgc ttcgtgggcg ccctggggct ctgacttccc tcageccage 600 aggccacagg ggctgcctgc accacgacac tegetggttt tatggcagga ggcagaagec 660 gtggaagcga atggaaaaca gcacagctga cttcacagta gtagatactg gtgacacttc 720 atggetgega eccagaatga aettaaegea eacagggaeg eagggtgtea etggteetgg 780 gcctttgtcc atgactaggt ggtcagcagg acttctgcag ctgactgtgc aatggctaaa 840 tgaaaaaaaa gccacagact aacctccact ttcctqtctt caaaattcta qtqacactgg 900 gaatgctata ggacctccta ctattctctt aaqqtcctaq qaaaqtttca qqaactaqqq 960 aaaagactgg gtactgaggc tgtgtcccca qatqtctqct tccqaaqcaq ccqcqtcatq 1020 acgggtttct gctgaggaag tggtgttggc agggccccat atgccctctc gggttgtcag 1080 gggtgggaga caggetgtat qqqqqtcctt catqtqcaqa tqqaacaqca tcqcctcaca 1140 gctgtgcaga cgaacagatg tggtctactg ccacqaacaa tgcggcataa aactgatcaa

tattataata	aagatttgtc	ttcttcatct	cccatatcta	caaagtgatt	ctacatttcc	1260
ttggacaaca	ctggagggcc	cgctcagtct	tggcactgac	gctggaggcc	atctccagct	1320
	tgtggcgagc					1380
	ctggctcctg					1440
	agttgagtgt				aagtcctggt	1500
ctggatcaga	catacttctc	agaggcacag	tgcacgctac	gct		1543

<210> 471 <211> 1154 <212> DNA <213> Homo sapiens

<400> 471 actacagtgc ggtggaattc gctgagcgag gcagcggcgg cagcagcggg gacgagctca 60 gggaggacga tgagcccgtc aagaagcggg gacgcaaggg ccgggggccgg ggtcccccgt 120 cotcotctga ctccgagccc gaggccgagc tggagagaga ggccaagaaa tcagcgaaga 180 agcegcagte etcaagcaca gagecegeca ggaaacetgg ecagaaggag aagagagtge 240 ggcccgagga gaagcaacaa gccaagcccg tgaaggtgga gcggacccgg aagcqgtccg 300 agggcttctc gatggacagg aaggtagaga agaagaaaga gccctccgtg gaggagaagc 360 tgcagaagct gcacagtgag atcaagtttg ccctaaaggt cgacagcccg gacgtgaaga 420 ggtgcctgaa tgccctagag gagctgggaa ccctgcaggt gacctctcag atcctccaga 480 agaacacaga cgtggtggcc accttgaaga agattcgccg ttacaaagcg aacaaggacg 540 taatggagaa ggcagcagaa gtctataccc ggctcaagtc gcgggtcctc ggcccaaaga togaggoggt gcagaaagtg aacaaggotg ggatggagaa ggagaaggoc gaggagaagc 660 tggccgggga ggagctggcc ggggaggagg ccccccagga gaaggcggag gacaagccca 720 gcaccgatct ctcagcccca gtgaatggcg aggccacatc acagaagggg gagagcgcag 780 aggacaagga gcacgaggag ggtcgggact cggaggaggg gccaaggtgt ggctcctctg 840 aagacetgca cgacagegta egggagggte eegacetgga caggeetggg agegacegge 900 aggagegega gagggeaegg ggggaetegg aggeeetgga egaggagage tgageegegg 960 gcagccagge ccagcccccg cccgagetca ggetgeccct etectteccc ggetegcagg 1020 agagcagagc agagaactgt ggggaacgct gtgctgtttg tatttgttcc cttgggtttt 1080 tttttcctgc ctaatttctg tgatttccaa ccaacatgaa atgactataa acggtttttt 1140 aatqaaaaaa aaaa 1154

<210> 472 <211> 5202 <212> DNA

<213> Homo sapiens

<400> 472 atccaagggt tgtatcgagc ctataaaagc acagttttaa gagagattcc ctttttcttt 60 ggtccagttt cccttatggg agtccttaaa agcccttggg tcctggaggc agtatcatgt 120 ggtggattct tggcagtcag cagtctgtgc agcttttgca ggtggatctg ccgctgcagt 180 caccaccct ctagacgtgg caaagacaag aattacgctg gcaaaggctg tgctccagca 240 actgctgatg ggaatgtgct ctctgtcctg catggggtct tgccgttcca aggggctggc 300 agggattatt gccaggtgtc cttcccctcc gaaatggcca gcccatcaag tctggggagg 360 tttccatctt tctgggggcc ttatgacccg aaacgcacag cttgctgttg gaagttggca 420 gaaagagtee ettgaageag agacaageet cacetecaet tetgteaaga gaggggeetg 480

cagtgcaaac	cctcttccgc	tgagcagctg	tctgaactat	aggccccagt	gctgaagacc	540
agttgtgcta	agataccggc	atggagattg	tgccatccgt	ggtataggct	ggctggtatg	600
aagtcattgg	cctgtatgcc	agagagctaa	gagaagaaaa	cggggtctgt	ggcggtactc	660
tgaacaattt	cctcagaacc	tcttaataaa	taagtttggt	aatgctgagg	ccaggccttt	720
tagagettte	atttgatctg	tatctgatct	ttcatttcct	gacacctgat	ggtggattca	780
gcagaaggca	agatggttat	aattctaaaa	gaatagettg	tttgtttgtt	tatttaaaaa	840
aaaqqaqact	tggggaagag	ttatatatat	gggtgtttct	cccctagtt	aattectett	900
				actacaggtg		960
actetttete	ggtaactagg	ctactaattt	taattaccct	cagatttcac	ccatanasac	1020
gcacaattgt	attattttac	agagatgtgt	ccaacacacac	ctgtggtgtg	trararaaar	1080
					gcacggtggg	
tgagggattc	tcaccattct	catatagagae	tassagara	gcctgggcca	gcacggcggg	1200
				agaccttgac		1260
caggegeaga	anaacccaaa	acaaaacgcc	aggaacctag	cagtgttgtc ttctttttg	tgeeetggag	1320
						1380
				caactatact		1440
				acacttcaat		1500
gccccaacg	tacactgtac	caaaaccccc	ataaataaat	aactttgtac	ataaaagtaa	1560
tactccctct	ttcacattgc	ctctcagaag	cagcaaattc	acatattttg	tggaagtaag	1620
attagtcagt	taactgtcaa	gaacaaaatt	ctaaatgtgc	ttaccttttg	aacagtgatg	1680
acacctgaca	gtaattgtta	actattttct	cagtaactcc	cttcagcttt	tggccaaagg	1740
aacatttgaa	ggaccttgtt	tctatttaag	ttttactaaa	tgacacattg	gcactcataa	1800
gatggttagc	taccagtctc	aaaagtgcaa	attataccca	gaacccaggt	caagggctgt	1860
cctttccagt	cccagctcag	tttcatctgt	gcgaaggaat	ggcatggaca	ggcctgctct	1920
gggtccttag	tagaaataag	gtagccctga	aaagtcagaa	cttcctcctt	tetgtecece	1980
aaggccaatg	taatactcat	tatattggca	aaacgaaaac	atcagtatag	aaaaatccac	2040
aggtaccaac	accagcagcc	tttaccttaa	tttaaaagtc	tcaaatagca	atcgaatgat	2100
actgagaagg	ccacatttgc	ttttatcata	aaataagagg	aggaggaaag	gcagtgttta	2160
actgttctga	ccttttgctt	gtgatggatt	aacaaccctc	attctacgcc	ttacagacgg	2220
acagattcta	cgccttacag	acagacagga	cttaaaccta	aaaggaaaag	ccattcactq	2280
caagtgtgga	tggcacttgc	acccctggct	ctacagacag	ggaagcctgt	tgcaggggca	2340
tccacacatg	agcagtgctc	acctgaagct	ccttccggcg	catgtggagt	cccaccqcac	2400
				ccttccatcc		2460
				ataaattcca		2520
aaggcaccag	aactatttcc	ccaccccctc	caaaattaaa	cagcaacctg	atacqaaaaa	2580
taatattqtc	aaaattqtat	aattttttc	tottaaccat	gcactaaaga	ttaaaatage	2640
				gtacaatgat		2700
				tgtgcttcag		2760
tqtqaqcqac	tgatactcca	catgggagtt	acaactatot	acagatgagt	gacgcttgaa	2820
cccaagette	ctcqcaqcct	ctcctacctc	tetttecegt	agagattggt	atgagagaa	2880
ctgaggtaga	caaaacctag	atttttaata	ccaacaccac	tggcaccete	tatttcccaa	2940
ggaggtgtcc	tatcaataac	ataaactcaa	gactogcoto	acatgctttg	agaaaataag	3000
cattggaaac	aaggaagtag	tagacttcca	cacactetaa	actgcctgaa	attastasa	3060
atgraggetg	tagetetete	asat caaat	gegeeeegg	tgctaaagtc	gccaacgaag	3120
gggtttgg	atctagagat	accattaact	ttttcttcac	agecgteage	attatataat	3180
				cccagcggca		3240
				ctccgggcca		3300
				ggcttgtccc		3360
actccacttc	gatattacaa	tanataggee	222222222	accgtgttcc	ctggagtaac	3420
acceaatat	cccttcacct	ttctccatca	at tt aga aga	attttatas	taggagagag	3420
Geccaggege	atttaaataa	ataggagge	cccccacgg	ctttttgtga gtcgggctct	tacgcagace	
						3540
acceptace to	cygacacaca	Coartgetet	caatgtgeee	attggcctga	gggccaccct	3600
cggccccgae	cacggccccc	rgreggreag	aaagggteee	ctgagaagag	aggtagcttg	3660
gaacatctgg	cggcacgacg	gtttcatetg	tgttggtgac	actgtactct	tcactcttct	3720
codeggeetg	gragatgatg	cacacccaga	ccagtgacgt	caggacgatg	ctgctcacga	3780
cagcaatggt	gaagatgcct	accgtggtcc	catcetteet	gcagcctgct	gcgggcagga	3840
cgctcagctg	gctgtgagct	cgctccgtgc	ccagggtgtt	ggacatetea	caggtatatc	3900
ggcccgcatc	ctctgccacc	acgttctgaa	ccaccaggag	ctggttgtca	ggggtcaagt	3960
ggtgccgctc	agtgaggete	agcgggcggt	ccccttgaa	ccaggtgatg	cggggcggag	4020
ggttccccgt	ggctttgcat	tggagggcca	ctgtttctcc	cacagatacc	acacggtctt	4080
ccaaggggac	caccaaggat	ggggtctcta	ggacagtcag	ggtggcatta	gctgaaatag	4140
aaccggctga	gttctgagca	gtacagctgt	aaacccctgc	gtcatctatt	ttcacatcag	4200
tgatgaaaaa	cacgtcgtca	tccggcatga	catgcatgcg	tcgctcacgg	gcagcgggga	4260
aatccgtgcc	tccatccttc	tgccaggcaa	tctgagggtt	tgggtgacct	gtggcagcac	4320

attegaggeg	ggccatggtg	gtggtccgga	tggttatgtc	gtggggcgtt	ttggtgaatg	4380
atggcaacac	attcacggtg	agcctggcct	tatgtgaata	ggtggagcca	aagtggttgg	4440
tgatgacaca	ttggtagcgg	ccctcgtgcc	cgaaagtgac	ctgacggagg	tgcaggatgg	4500
tggtgtactc	catcacttcc	ccgtcctgcg	cgtggacgtg	gacaaagttc	tecatgtetg	4560
cattggtcag	gacttcattg	tetttettee	aggcaaaggt	catgggggag	ctgctgctgc	4620
tggctgctga	gcatgtaaac	cggatgtcct	tgcccaccat	agccatggtg	gtttetgget	4680
gggtgatgat	ctgtggatta	aggaagtcat	cgcacacgaa	actctctggt	ggcacagaga	4740
aaatgctctg	accettcagt	gattctgggt	gggcacaggt	ggctgtcaca	aaggcetgca	4800
gcatcctgcc	aattagccac	gggggcagcc	acttcagctg	gcagtcacae	aggaagetgt	4860
cgctgctgat	atggagetet	ttaagattct	tcatcttcac	aaaggcatca	aactggacag	4920
atctgatcgc	attccctcca	aggttcaggt	gctccaggcc	ttccagcccc	gagaatgctc	4980
tcttagccac	agacttgatc	ttgtttccaa	acagagtcag	cttgctgagg	ctgtcgagcc	5040
ctgagaaggc	gacgatagtg	tectetattg	tgcccgaaat	ctcgttatgg	tccagatcca	5100
agactcgcag	gctcctgagt	cccttgaagg	caccctccgc	aatgtggctg	atggaattgt	5160
ggctgagacg	caggacactc	aggetgetea	gctcggccag	gc		5202

<210> 473

<211> 4715

<212> DNA

<213> Homo sapiens

<400> 473

ggcggcggcg	ggggcagcgc	ggcgcgtgtc	tgtgcgctgc	ggtcgctcgg	gaccgggacc	60
ggggcgaggc	gccgcggggc	tgagcccagc	agacattgcg	ttggcctccg	agcagggcgc	120
atcatgcagc	gttcgcgcac	cggagagaaa	actgagaatg	aaattgcttt	ggcaagctaa	180
aatgagctcg	attcaggact	ggggtgaaga	ggtagaggaa	ggagctgttt	accatgtcac	240
cctcaaaaga	gtccagattc	aacaggctgc	caataaagga	gcaagatggc	taggggttga	300
aggggaccag	ctgcctccag	gacacacagt	cagtcaatat	gaaacctgta	agatcaggac	360
	ggcaccttgg					420
tgactttacc	tatatcagca	tetttette	aacgtacaga	ggctttgcct	ccactaaaga	480
agtgctggaa	ctactgctgg	acaggtatgg	aaacctgaca	agcccaaact	gtgaagaaga	540
tggaagccaa	agttcatcag	agtccaaaat	ggtgatcagg	aatgcaatcg	cttccatact	600
aagggcctgg	cttgaccagt	gtgcagaaga	cttccgagag	ccccctcact	tecettgett	660
acagaaactg	ctggattatc	tcacacggat	gatgccgggc	tctgacccag	aaagaagagc	720
	cttgagcagt					780
cacgatetee	ttcagcctgg	aagaggaaga	ggaactggag	ggtggagagt	cagcagaatt	840
cacgtgcttc	tcagaagatc	tegtggcaga	gcagctgacc	tacatggatg	cacaactctt	900
caagaaagta	gtgcctcacc	actgcctggg	ctgcatttgg	tctcgaaggg	ataagaagga	960
aaacaaacat	ttggctccta	cgatccgtgc	caccatctct	cagtttaata	ccctcaccaa	1020
atgtgttgtc	agcaccatcc	tggggggcaa	agaactcaaa	actcagcaga	gagccaaaat	1080
cattgagaag	tggatcaaca	tcgctcatga	atgtagactc	ctgaagaatt	tttcctcctt	1140
gagggccatc	gtttcggcac	tgcagtctaa	ttccatctat	cggttaaaaa	agacttgggc	1200
tgccgtccca	agggaccgaa	tgctgatgtt	tgaagaactt	tcagatatct	tctcagacca	1260
taataaccat	ttgaccagcc	gagaactact	gatgaaggaa	ggaacctcaa	aatttgcaaa	1320
cctggacagc	agtgtgaaag	aaaaccagaa	gcgtacccag	aggcggctgc	agctccagaa	1380
ggacatgggt	gtgatgcagg	gaactgtgcc	ctacctgggc	accttcctga	ctgacctgac	1440
catgcttgac	actgcccttc	aggactacat	cgagggtgga	ctgataaact	ttgagaaaag	1500
gagaagggaa	tttgaagtga	ttgcccagat	aaagctctta	cagtetgeet	gcaacagcta	1560
	ccagaccaaa					1620
ggaggagagc	tatgccctgt	catgtgagat	tgaagcagct	gctgacgcca	gcaccacctc	1680
gcccaagcct	tggaagagca	tggtgaagag	actcaaccta	ctgtttctag	gggctgacat	1740
	cccactccca					1800
	gactctgtca					1860
	actcccatgg					1920
	tcttctatcc					1980
aatcaacccc	ctctcctccc	ctccgtcctg	caacaacaac	cccaaaatcc	acaagegete	2040

tgtctcggtg	acgtccatta	cctcgactgt	getgeeteet	gtttacaacc	aacagaatga	2100
agacacctgc	ataatccgca	tcagtgtgga	agacaataac	ggcaacatgt	acaagagcat	2160
catgttgacg	agccaggata	aaacccccgc	tgtgatccag	agagccatgc	tgaagcacaa	2220
tctggactca	gaccccgccg	aggagtacga	gctggtgcag	gtcatctcgg	aggacaaaga	2280
acttgtgatt	ccagactcag	caaatgtctt	ttatgccatg	aacagccaag	tgaactttga	2340
cttcattttg	cgcaaaaaga	actccatgga	agaacaagtg	aaactgcgta	gccqgaccaq	2400
cttgacgttg	cccaggacag	ctaaacgggg	ctgctggagt	aacagacaca	gcaaaatcac	2460
cctctgaagg	gagggaccag	tggcccettg	tttgccaaag	gcagagtggg	gctgagaaac	2520
aggctgcggt	gattgcaatt	accatccggt	gttcgaggat	cattggtgaa	gtcagcagat	2580
atttattgag	ttcctgtggt	gtgcaaagca	ttatgatagg	caccgtgggg	aaactggaaa	2640
tgaatttgac	atgaaaagga	tgaacgattc	actgattctc	tttgactcat	ttgagactaa	2700
aatgcagaat	taccaacatt	taaaacatat	atatgcacat	gtatttggta	tgcatgtgta	2760
tatatataaa	aatatataag	agggacttta	tgggatagta	tggactatgg	aaaaacaaat	2820
ttgcacaatg	gcctgggaag	ttgaggtcac	tttttacagg	gaaatagaag	aaactgagaa	2880
cctagtctcg	tatattctga	gtaaatggaa	tcagtcctgg	gaatagagag	tgtcctttgt	2940
gccagtatta	caagaagccc	aaactttatt	tttataaagg	gagaggatga	ctttctcaat	3000
caagtgccac	cagataaaaa	caactgcaga	ggctggaact	gccacaggct	gtatgaaagg	3060
ccactttgga	aagggtttgg	atgagctggt	ggccttcaac	ctctgcctgc	atctgccact	3120
ttctgctacc	ctagggaggc	caggaggagc	ttcggaggac	categeecea	ctggtctagc	3180
catcatgaca	cctctggagg	tgtcaagctc	ctgaaacaag	ctcatttcag	tttctggcaa	3240
ccccgtgtat	ttccgttttc	cccctaaaga	acatatcata	atcattgcac	aaataaccat	3300
gttctttggt	aatgaagcca	gaaaagaaag	cgcaaaagaa	tggtgactca	tttggactct	3360
tatctgtctt	ggaatgtcac	tgcttcattg	ccttctctga	ttgccttttg	catgtaaaac	3420
tatgtgtctg	gagtettttg	ccatctggat	cttagtacct	ctttattatg	tgcaatttat	3480
tcctcaggtg	tggaaatttc	tactgcaatt	gactacgttt	gattattttg	agcttgtgaa	3540
agatttetga	acagtgattg	tecegttaat	agcccctcag	aagatgttcc	ctgctgataa	3600
cagcatccta	ttttacttac	ttttatagca	ttactgtgcc	tagtcgtggg	gaaagagatg	3660
gggctgtata	gattatctga	atcatttgtc	taagaggtac	attettecag	atggaatcaa	3720
taacttttt	tttccaggtt	cccgtgcttg	ctatcacagt	atcattgtta	agtgacactt	3780
ttgtctctca	taacaccatc	acactcttcc	ttccaagtct	gagctgtgct	ggggtttgaa	3840
ctaaaagcca	tatgtggaat	attgacatgt	gtaagaagca	ctttcagaat	gttgtccttt	3900
ttaagaaatg	attctcaaaa	taccagtttt	tattccaaaa	atttagagaa	caaacccgga	3960
atatgaagtg	cagattgtaa	catggagcta	ttttttttc	ctaatcccat	aatacagctc	4020
ctamaagttg	tgtgggattt	gcgttgcata	aatagccatg	tgaattccac	aagaagcacc	4080
agggaaagtt	tagagatttg	cggcaatgga	ccgaagaacg	ggccaggaag	tcctccaatt	4140
teetttggte	tttccaggag	attggactac	acattgtaaa	gactgactgg	gtttcaacta	4200
gtcaaaaagc	actttcttct	gttttcaatc	cctgttcgat	ttgtgcttct	gtgcttgtag	4260
gagagatggc	cagggtggca	gccctcatgc	aggttgaagt	atatgtagcc	tcagcctgat	4320
attettggtg	cgaaggtaaa	aaaaaaaaa	taaataaaac	cattggcctg	gttgagggcg	4380
				ggtatttata		4440
agagtetaaa						4500
atggaaattc	caagtagcta	aaacttagct	tcatttattt	aatgccactt	taaatgtctt	4560
aaatttgttt	cctggtggac	agccgggtaa	tgcttttagc	tgctcgcatg	cttgtctttc	4620
tgcatctcca	tcatctgttt	accttttggt	taaactaata	aactagtttg	ggacttggct	4680
ggcatgtgct	gccagaccca	aagggaaaaa	aaaaa			4715

```
<210> 474
<211> 1374
<212> DNA
```

<213> Homo sapiens

c400> 474
goacqaqaaa aqastgyattc ttgtattgaa gcetttggta ccaccaaaca gaagcgagct 60
ctgaacacca ggagaatgaa cagagttggc aatgaatctt tgaatcgtgc agtggctaaa 120
gctgcagaga ctatcattga tacgaagggt gtgactgctc tggtacgcg tgctatccac 18
aatgacttgc aagatgaacc cctcaccctgc tatgatgatga agccaagcct 240

gaagacgtgt	ataaatttga	agatettett	teceetgegg	agtatgaagc	tetteagage	300
ccatctgaag	ctttcaggaa	cgtcacgtca	gaagaaatac	tgaagatgat	tgaggagaac	360
agccattgca	cctttgtcat	agaagcgttg	aagtetttge	catcagatgt	ggagagccga	420
gaccgccagg	cccgatgcat	atggtttctg	gataccetea	tcaaatttcg	agctcatagg	480
gtagttaagc	ggaaaagtgc	tctgggacct	ggagttcccc	acatcatcaa	caccaaactg	540
ctgaagcact	ttacttgctt	gacctacaac	aatggcagat	tacggaactt	aatttcggat	600
tctatgaagg	cgaagattac	tgcatatgtg	atcatacttg	ccttgcacat	acatgacttc	660
caaattgacc	tgacagtgtt	acagagggac	ttgaagctca	gtgagaaaag	gatgatggag	720
atagccaaag	ccatgaggct	gaagatetee	aaaagaaggg	tgtctgtggc	cgccggcagt.	780
gaagaagatc	acaaactggg	caccetgtee	ctcccgctgc	ctccagccca	gacctcagac	840
cgcctggcaa	agcggaggaa	gattacctag	acgcatgctt	tccagacagg	gcgttttggc	900
tgcatcacag	ccactggctg	gtcctattca	tttccatttt	tatgtatgtt	ttgaaaagaa	960
aaggtccggg	gatggtggct	cacacctgaa	atcccagcac	tttgggaggc	cgaggcagga	1020
agatcattga	gctcaggagt	ttgaaaccag	tctggacaac	atagggagac	cccatctcta	1080
ccggaggaaa	aaaaaagag	tcaggcctgg	tggtgtgcgc	ctgtaatccc	agctactcgg	1140
gaggctgagg	caggacgatt	acttgagctt	gggaaatcaa	ggttgcagtg	agctatgatt	1200
gtgtggccac	actccatcct	gggtcacaga	gtgagacctt	gtctcaaaaa	agtaacataa	1260
ggaaaaaaga	agccttgctt	tagcacaggt	atgaagccag	aagccagcat	ctcaactgtg	1320
cttgtcttat	gcagaaatat	aaagcgatgg	ccaggttgga	cttcaaaaaa	aaaa	1374

<210> 475 <211> 3076

<212> DNA

<213> Homo sapiens

<400> 475

cetytetete tteggytete qqqccettqy qcqcaqcqqq qcqcqcca tqqcqaaqqc gaagaaqqtc qqgqcqcqaa qqaaqqcctc cqqqqcqccq qcqqqaqcqc qaqqqqccc 120 ggcgaaggcc aactccaatc cqttcqaqqt qaaaqttaac aqqcaqaaqt tccaqatcct gggccggaag acgcgccacg acgtgggact gcccggggtg tctcgcgcac gggccctcag 240 gaagogtaca cagactttac taaaagagta caaagaaagg gataaatcca atgtattcag 300 agataaacgc ttcggagaat acaacagcaa catgagcccc gaggagaaga tgatgaagag 360 gtttgctctg gaacagcagc gacatcatga gaaaaaaagc atctacaatc taaatgaaga 420 tgaagaattg actcattatg gccagtcttt ggcagacatc gagaagcata atgacattgt 480 ggacagtgac agcgatgctg aggatcgagg aacgttgtct ggtgagctga ctgctgccca 540 ctttggagga ggeggtgggc tccttcacaa gaagactcaa caggaaggcg aggagcggga 600 gaaaccgaag tcccggaaag agctgattga agagctcatt gccaagtcaa aacaagagaa 660 720 gagggagaga caagctcaac gagaagatgc cctcgagctc acggagaagc tagaccaaga ctggaaagaa attcagactc teetgteeca caaaacteec aagtcagaga acagagacaa 780 aaaggaaaaa cccaagcccg atgcatatga catgatggtt cgcgagcttg gctttgaaat 840 gaaggegeag ecetetaaca ggatgaagac ggaggeagaa ttggcaaagg aagageagga 900 gcacctcagg aagctggagg ctgagagact tegaagaatg cttggaaagg atgaggatga 960 aaatgttaag aaaccaaaac atatgtcagc agatgatctg aatgatggct tcgtgctaga 1020 taaagatgac aggcgtttgc tttcctacaa agatggaaag atgaatgtcg aggaagatgt 1080 ccaggaagag caaagcaagg aagccagtga ccctgagagc aacgaggaag aaggtgacag 1140 ttcaggcggg gaggacacag aggagagcga cagcccagat agccacttgg acctggaatc 1200 caacgtggag agtgaggaag aaaacgagaa gccaqcaaaa gagcagaggc agactcctgg 1260 gaaagggttg ataageggea aggaaagage tggaaaaget accaqagaeg agetgeeeta 1320 cacgttcgca gcccctgaat cctatgagga actgagatet ctgttgttag gaagatcgat 1380 ggaagagcag cttttggtgg tqqaqaqaat tcaqaaqtqc aaccacccqa qtctcqcaqa 1440 aggaaacaaa gcaaaattag aaaaactgtt tggctttctt ttggaatacg ttggcgattt 1500 ggctacagat gacccaccag acctcacagt cattgataag ttggttgtgc acttatatca 1560 tetttgecag atgttteetg aatetgeaag tgacgetate aaatttgtte teegagatge 1620 gatgcatgag atggaagaaa tgattgagac caaaggeegg geggeattge cagggttgga 1680 tgtgctcatt tatttgaaaa tcactgggct gctatttcca acttccgact tctggcaccc 1740 agtggtgacc cetgeceteg tgtgeeteag teagetgete accaagtgee ceateetgte 1800

cctccaggac	gtggtgaagg	gcctgttcgt	gtgctgcctg	ttcctggagt	atgtggcttt	1860
gtcccagagg	tttatacctg	agcttattaa	ttttcttctt	gggattcttt	acatagcaac	1920
tccaaacaaa	gcaagccaag	gttccactct	ggtgcaccct	ttcagagcgc	ttgggaagaa	1980
ctcggaactg	ctcgtggtgt	ctgctagaga	ggatgtggcc	acgtggcagc	agagcagcct	2040
ctccctccgc	tgggcgagta	gactgagggc	cccaacttcg	acagaggcca	atcacatccg	2100
actgtcctgc	ctggctgtgg	gcctggccct	gctgaagcgc	tgcgtgctca	tgtacgggtc	2160
cctgccatcc	ttccacgcca	tcatggggcc	tctccgagcc	ctcctcacgg	atcacctggc	2220
ggactgcagc	cacccgcagg	agctccagga	gctgtgtcag	agcacactga	ccgaaatgga	2280
aagccagaag	cagctctgcc	ggccgctgac	ctgtgagaag	agcaagcctg	tcccactgaa	2340
gcttttcaca	ccccggctgg	tcaaagtcct	cgagtttgga	agaaaacaag	gcagtagtaa	2400
ggaggaacag	gaaaggaaga	ggctgatcca	caaacacaag	cgtgaattta	aaggggccgt	2460
tegagaaate	cgcaaggaca	atcagttcct	ggcgaggatg	caactctcag	aaatcatgga	2520
acgggatgcg	gaaagaaagc	ggaaagtaaa	gcagcttttt	aacagcctgg	ctacacagga	2580
aggcgaatgg	aaggctctga	agaggaaaaa	gttcaaaaaa	taaattacat	tttataaata	2640
aggcaaggaa	ctggacatta	cctcacatct	gcaattccaa	ccctctggtc	tcgaattccc	2700
gacctcaggt	aatccacctg	ccttggcccc	ccaattatag	gtgtgagcca	cagcacccag	2760
ccaaaaaagt	aattttttt	agagtaataa	tgctataatg	ttggtgtgat	tccaacctcc	2820
agetececee	accegetgee	tgcggttttg	tttctgttaa	aacgtcacct	gatgaaatag	2880
aatgaatcct	gaaatgcacc	tctgggatcg	ggaatggtct	gtgtgttatc	agctgcgact	2940
ggttcactgc	gtctggacaa	gcctcatggg	gactggggat	tctggccagt	gtaatttctg	3000
tcaaccacgg	acgtttgcct	tcatgtgtag	aatttactgt	tgttatgcaa	attatatttt	3060
caattataaa	tgaaaa					3076

<210> 476 <211> 959 <212> DNA

<213> Homo sapiens

<400> 476

geetcaccaa geaggaagae tgetgeggta geateggeae tgeetgggge cagageaagt 60 gccacaagtg tccccagctg cagtacacag gagtgcagaa gccagggcct gtacgtgggg 120 aagtgggcgc tgactgtccc cagggctaca agaggcttaa cagcacccac tgccaggaca 180 tcaacgagtg cgcaatgccg ggcgtgtgtc gccatggtga ctgcctcaac aaccctggct 240 cctatcgctg tgtctgccca cctggccata gtttaggccc ctcccgtaca cagtgcattg 300 cagacaaacc ggaggagaag agcctgtgtt tccgcctggt gagccctgag caccagtgcc 360 ageacceact gaccaccege etgaccegee agetetgetg etgcagtgte ggcaaggeet 420 ggggcgcgcg gtgtcagcgc tgcccaacag atggcaccgc tgcgttcaag gagatctgcc 480 cagetgggaa gggataccae attetcacet cecaccagae getcaccatt cagggegaga 540 gtgacttttc cetttteetg caccetgacg ggccacccaa gccccaqcag etteeggaga 600 gecetageca ggetecacca cetqaggaca caqagqaaqa qaqagqqqtq accaegqact 660 caccqqtqaq tqaqqaqaqq tcaqtqcaqc aqaqccaccc aactqccacc acqactcctq 720 ccoqqccta ccccqaqctq atctcccqtc cctcqccccc qaccatqcqc tqqttcctqc 780 eggaettgee teetteegge agggeegtag agategetge cacteaggte agagagactg 840 atgagtgccg actgaaccag aacatctgtg gccacggaga gtgcgtgccg ggcccccctg 900 actactcctg ccactgcaac cccggctacc ggtcacatcc ccagcaccgc tactgcgtg 959

<210> 477

<211> 3652

<212> DNA

<213> Homo sapiens

<400>	477					
ttttttttga	cataatcatt	tttatttgat	ttaattgata	aataaataca	agagaactgt	60
tqtqaaacca	cttggcaata	tagtaaattt	taaaqatttt	atttcaactt	cactcactta	120
	gaatggggat					180
	ctatttgtag					240
	ttcttttgct					300
cagccaaaac	ctttaaccca	aaattcagaa	actocactee	tacaaqtgaa	caaactagtg	360
	attatcatga					420
acaagacagg	ttagcaactg	gtacagettt	cccttctaaa	cactcaaaac	tttaccetta	480
	ttatttcatc					540
	gcatttaata					600
	atgacgcacg					660
tatetegtat	tcaatatcaa	tagtgttttt	gaattacatg	atatatittt	cacaaacata	720
gcacctcatc	aaatatctgg	tagagacttt	gcaatcacaa	taagtottoo	anacana	780
tocasagada	attatgtgat	tcacttaaaa	gtaacettat	aagagaagta	teagaccaage	840
	gaatgcagtc					900
gcaccatect	attaagacgt	ggtaatatgt	ttccaaacca	assasatra	ataeatatte	960
	ctgctttata					1020
	aaagagatat					1080
aagatactaa	atgaagtcca	attttatctt	ataaaatttt	actotagean	ctaatetact	1140
	aaagtttaac					1200
attttcacaa	getgtactcc	taaactaaaa	aatcactttt	tttataaaa	acceeggega	1260
	aggagatggg					1320
	tgccagatag					1380
ctcctttctt	cctaaactct	attttattt	cattttcatc	ttatastasa	attttatta	1440
	accttcagct					1500
	tactccagga					1560
	ttgtattgga					1620
	aatagtctgg					1680
	aggactttct					1740
	gtgctgaagc					1800
	tgctggactg					1860
	tttgagtagc					1920
	atccatagca					1980
	gtagcgcctt					2040
	ggatattgta					2100
	tcttacaaat					2160
	tegeteteca					2220
	ctccagggat					2280
	tcctctgaat					2340
	aagatgcttc					2400
	aaaaagctga					2460
	agagetegta					2520
	gtaaacactc					2520
canttacaan	aagatcatta	tettteatte	ageaccacc	attataasta	tgatatatat	2640
	attgttacat					2700
	atcttgaacc					2760
ctgtatgact	cgtggccacc	aactaattaa	gagtgatage	gagagaatat	agaggaagg	2820
ccaractas	cactccaatt	taaattaaa	ttaaaaaata	gagagcaccc	acaggaacac	2880
tactactata	tgaggcaaca	ggaaggattt	totatte	togatotec	cacaagatga	2940
cotttacett	taaagctact	gettegatae	tgccctcgcc	chatgagge	cccccaacca	3000
actaccatec	tgaagattct	ttesttetet	nagagagaga	acacgggece	totacacac	3060
	gtgatggcca					3120
	ttcttctccc					3120
						3180
	agaatttaga					
	aatacctggt					3300
	ttetteacat					3360
	cctgagaaca					3420
catctccaa	aatgggtgca tgttgaaatt	staggart	gacctctatc	aatddatdEd	geaccagett	3480
	ttgtcttgag					3540 3600
Juouugugt	Lugicucugag	gractaaatC	cygrececee	cacyccoage	cyyacyacet	2000

equequetque quequeque quaqquaaque tquequaqta conteceque at

3652

<210> 478
<211> 2477
<212> DNA
<213> Homo sapiens
...
<220>
<221> misc_feature
<222> (1)...(2477)
<223> n = a,t,c or g

<400> 478

cgtcgaccca cgcgtccgat cttaacagac gagttgttta aaagaactat ccaactgcct 60 cacttgaaaa ctctcatttt gaatggcaat aaactggaga cactttcttt agtaagttge 120 tttgctaaca acacaccctt ggaacacttg gatctgagtc aaaatctatt acaacataaa 180 aatgatgaaa attgctcatg gccagaaact gtggtcaata tgaatctgtc atacaataaa 240 ttgtctgatt ctgtcttcag gtgcttgccc aaaagtattc aaatacttga cctaaataat 300 aaccaaatcc aaactgtacc taaagagact attcatctga tggccttacg agaactaaat 360 attgcattta attttctaac tgatctccct ggatgcagtc atttcagtag actttcagtt 420 ctgaacattg aaatgaactt catteteage ceatetetgg attttgttea gagetgeeag gaagttaaaa ctctaaatgc gggaagaaat ccattccggt gtacctgtga attaaaaaat tteatteage ttgaaacata tteagaggte atgatggttg gatggteaga tteatacace tgtgaatacc ctttaaacct aaggggaact aggttaaaag acgttcatct ccacqaatta tottgcaaca cagototgtt gattgtcacc attgtggtta ttatgctagt totggggttg getgtggcet tetgetgtet ceaetttgat etgecetggt ateteaggat getaggteaa tgcacacaaa catgcacaq qqttaqqaaa acaacccaaq aacaactcaa qaqaaatgtc cgattccacg catttatttc atacagtgaa catgattctc tgtgggtgaa gaatgaattg 900 atccccaatc tagagaagga agatggttct atcttgattt gcctttatga aagctacttt gaccetggca aaagcattag tgaaaatatt gtaagettea ttgagaaaag ctataagtee 1020 atctttgttt tgtctcccaa ctttgtccag aatgagtggt gccattatga attctacttt 1080 gcccaccaca atctcttcca tgaaaattct gatcatataa ttcttatctt actggaaccc 1140 attocattot attgcattoc caccaggtat cataaactga aagototoot ggaaaaaaaa 1200 gcatacttgg aatggcccaa ggataggcgt aaatgtgggc ttttctgggc aaaccttcga 1260 gctgctatta atgttaatgt attagccacc agagaaatgt atgaactgca gacattcaca 1320 gagttaaatg aagagtotog aggttotaca atotototoga tgagaacaga ttgtotataa 1380 aatcccacag teettgggaa gttggggace acatacactg ttgggatgta cattgataca 1440 acctttatga tggcaatttg acaatattta ttaaaataaa aaatggttat tcccttcata 1500 tcagtttcta gaaggatttc taagaatgta tcctatagaa acaccttcac aagtttataa 1560 gggcttatgg aaaaggtgtt catcccagga ttgtttataa tcatgaaaaa tgtggccagg 1620 tgcagtggct cactcttgta atcccagcac tatgggaggc caaggtgggt gaacccacga 1680 ggtcaagaga tggagaccat cctggccaac atggtgaaac cctgtctcta ctaaaaatac 1740 aaaaattagc tgggcgtgat ggtgcacqcc tqtaqtccca qctacttqqq aqqctgaqqc 1800 aggagaateg ettgaaceeg ggaggtggca gttgcagtga getgagateg agecaetgca 1860 ctccagcctg gtgacagagc gagactccat ctcaaaaaaa agaaaaaaaa aaaaggaaaa 1920 aatgggaaaa cttcctcttg gccccaaaat agggtctaat tcaataaatt atagcccttt 1980 aaggtaatat aatattactg gcccctaaaa aaaataggga agctgtttat ttccgggttg 2040 ggaaaaacca tattaatatg ttttaacctt ttaggtgggg gcaaaactaa tgggggtttt 2100 tgccattgaa agggctttga aataaaaggg taaagaaatt tatcccaaat gtagtaccag 2160 gggttggggt ctgggaggtt ggattacggg gagcattgga tttctatgtg gggaatttct 2220 ataaggttgg aatggttaaa aaggaatctg tattttttt ataagtagaa aaaaaataag 2280 gatggttttt acagcctaca cttcctaaaa aaaaagggat ttttttttta ggggcccgg 2340 gttttttccc tttggggggg gggaatttaa ttttgggccg ggccgggctt tttaacaccg ggggcagggg gaaaaacccg ggggggtccc ccctttaatg cccttgggga caaaaaaana 2460 naccattqtq ccqqaqq 2477

<210> 479 <211> 1297 <212> DNA <213> Homo sapiens

<400> 479 cocacocotte egeccacoco tecocecaco estecoette toaccecote ttogacttea actgggagaa tgtggagcca tttgaacagg ctcctcttct ggagcatatt ttcttctgtc 120 acttgtagaa aagctgtatt ggattgtgag gcaatgaaaa caaatgaatt cccttctcca 180 tgtttggact caaagactaa ggtggttatg aagggtcaaa atgtatctat gttttgttcc 240 cataagaaca aatcactgca gatcacctat tcattgtttc gacgtaagac acacctggga 300 acccaggatg gaaaaggtga acctgcgatt tttaacctaa gcatcacaga agcccatgaa 360 traggreet araaatgraa agreeaagtt areagetgtt raaaatarag tregtgartte 420 agetteacga ttgtegacce ggtgacttee ecagtgetga acattatggt catteaaaca 480 gaaacagacc gacatataac attacattgc ctctcagtca atggctcgct gcccatcaat 540 tacactttct ttgaaaacca tgttgccata tcaccagcta tttccaagta tgacagggag 600 cctgctgaat ttaacttaac caagaagaat cctggagaag aggaagagta taqqtgtgaa 660 gctaaaaaca gattgcctaa ctatgcaaca tacagtcacc ctgtcaccat gccctcaaca 720 780 ggcggagaca gctgtccttt ctgtctgaag ctactacttc cagggttatt actgttqctg gtggtgataa tectaattet ggetttttgg gtactgeeca aatacaaaac aagaaaaget 840 900 atgagaaata atgtgcccag ggaccgtgga gacacagcca tggaagttgg aatctatgca aatateettg aaaaacaage aaaggaggaa tetgtgeeag aagtgggate caggeegtgt 960 gtttccacag cccaagatga ggccaaacac tcccaggagc tacagtatgc cacccccgtg 1020 ttccaggagg tggcaccaag agagcaagaa gcctgtgatt cttataaatc tggatatgtc 1080 tattctgaac tcaacttctg aaatttacag aaacaaacta catctcagga tggagtctca 1140 ctctgttgcc caggetggag ttcggtggcg cgatcttggc tcacttcaat ctccatcttc 1200 ccagttcaag cgattctcat gcctcgacct cccgagtagc tgggaattac aggtgcccgc 1260 taccacgccc agctaatttt tggattttta gtagagc 1297

<210> 480 <211> 569 <212> DNA <213> Homo sapiens

<400> 480 ttttttttt ttgaagagag acggacaggc tctcactctg taggccaccc taggatggaa tacagtggtg tgtctatggc tcactgcagc ctcaacctcc tgggctcaag caattctcct 120 tetteageet cecaagatge taggactaca ggtgcatgte aacatgeeca getaattggt 180 ttttttttt tttgtagaga cagcatetee ccaggttace catgetggte caaacacetg 240 gtctcaagaa atccttctgc tgtgacctcc caaagtgcta ggattaaaac atgacccacc 300 atgeteagag tecattttea tttetgattt gagtaatttt aaacttttet ettttttet 360 tagtcaatct agttaatggt tgtcaatttt gttgatttta ttttgaagaa tcaacttttg 420 gtttcattaa tttcctctat tctttttcca ttctccattt tatttatgtc cactctaatc 480 cttattattt ccctcattca ctgtgcttgg qtttagtttg ttcttctttc atatcctgaa 540 gtattaaagt aggttgttga cctgaaaaa 569

<210> 481 <211> 1570 <212> DNA <213> Homo sapiens

<400> 481 aatagagaag gtgccagaaa gatccaaaac aagtggctgc ggccgtcgcc caggagtcat 60 cqqacqccaq aatctqtqtc tccaqaacqc tataqctatq qcacctccaq ctcttcaaaq 120 aggacagagg gtagetgeeg tegeegtegg cagteaagea gttetgeaaa tteteageag 180 ggtcagtggg agacaggctc ccccccaacc aagcggcagc ggcggagtcg gggccggccc 240 agtggtggtg ccaaacggcg gcggagaggg gccccagccg caccccagca gcagtcagag 300 cccgccagac cttcctctga aggcaaagtg acctgtgaca tccggctccg ggttcgagea 360 gagtactgcg agcatgggcc agccttggag cagggcgtgg catcccggcg gccccaggcg 420 ctggcgcggc agctggacgt gtttgggcag gccaccgcag tgctgcgctc aagggacctg 480 ggctctgtgg tttgtgacat caagttctca gagctctcct atctggacgc cttctggggc 540 gactacetga gtggegecet getgeaggee etgeggggeg tgtteetgae tgaggeeetg 600 cgagaggctg tgggccggga ggctgttcgc ctgctggtca gtgtggatga ggctgactat 660 gaggetggee ggegeegeet gttgetgatg gaggaggaag gggggggggeg eeegacagag 720 gesteetgat coaggactgg caggattgat cocaceteca agtsteeggg coacettete 780 ctgggaggac gaccatctct acccctagag gactgtcact ctagcatctt tgaggactgc 840 gacaggaceg ggacagcagg ccccttgaca gcccctccca caggatgtgg gctctgaggc 900 ctaaaccatt tocagotgag tttcottocc agactoctcc tacccccagg tgtgcccct 960 tagecteegg aggegggge tgggeetgta teteagaagg gaggggeaca getacacact 1020 caccaaaggc cccctgcac attgtatctc tgatcttggg ctgtctgcac tgtcacaggt 1080 geacacacte geteatgete acactgeece tgetgagate tteeetggge etetgeectg 1140 gootgettee cageacacac ttetttggee taagggette teteteagga cetetaattt 1200 gaccacaacc aacctgggct tcagccacat cagtgggcac tggagctggg gtgcacatgg 1260 ggcctgctca ccttgcccac acatctccag ccagccaggg ccctgcccag cttcaattta 1320 cagacetgae tetecteace tteccecetg etgtecagag etgaacatag acttgeactt 1380 ggatgtcacc tggagtgtca catgggagtg ttatggcagc atcataccaa ggcctactgt 1440 tgcacatggg gccaaaacca gtaaacagcc acettettgg aaagggaatg caaaggettt 1500

gggggtgatg gaaaagacct ttttacaaat gataccaatt aaactgccct gggaaagggc

1560

1570

<210> 482 <211> 1774 <212> DNA

<213> Homo sapiens

<400> 482

attaggtggg

gctccaaata ctgcagaatt aaggatttgt cgtgtaaaca agaattgtgg aagtgtcaga 60 ggaggagatg aaatatttet actttgtgac aaagttcaga aagatgacat agaagttcgt 120 tttgtgttga acgattggga agcaaaaggc atcttttcac aagctgatgt acaccgtcaa 180 gtagocattg ttttcaaaac tccaccatat tgcaaagcta tcacagaacc cgtaacagta 240 aaaatgcagt tgcggagacc ttctgaccag gaagttagtg aatctatgga ttttagatat ctgccagatg aaaaagatac ttacggcaat aaagcaaaga aacaaaagac aactctgctt 360 ttccagaaac tgtgccagga tcacgtagaa acagggtttc gccatgttga ccaggatggt 420 cttgaactcc tgacatcagg tgatccaccc accttggcct cccaaagtgc tgggattaca 480 gttaattttc ctgagagacc aagacctggt ctcctcggtt caattggaga aggaagatac 540 ttcaaaaaag aaccaaactt gttttctcat gatgcagttg tgagagaaat gcctacaggg 600

gtttcaagtc	aagcagaatc	ctactatccc	tcacctgggc	ccatctcaag	tggattgtca	660
catcatgcct	caatggcacc	tetgeettet	tcaagctggt	catcagtggc	ccaccccacc	720
ccacgctcag	gcaatacaaa	cccactgagt	agtttttcaa	caaggacact	tccttctaat	780
tcgcaaggta	tcccaccatt	cctgagaata	cctgttggga	atgatttaaa	tgcttctaat	840
gcttgcattt	acaacaatgc	cgatgacata	gtcggaatgg	aagcgtcatc	catgccatca	900
gcagatttat	atggtatttc	tgatcccaac	atgctgtcta	attgttctgt	gaatatgatg	960
acaaccagca	gtgacagcat	gggagagact	gataatccaa	gacttctgag	catgaatett	1020
gaaaacccct	catgtaattc	agtgttagac	ccaagagact	tgagacagct	ccatcagatg	1080
tcctcttcca	gtatgtcagc	aggcgccaat	tccaatacta	ctgtttttgt	ttcacaatca	1140
gatgcatttg	agggatctga	cttcagttgt	gcagataaca	gcatgataaa	tgagtcggga	1200
ccatcaaaca	gtactaatcc	aaacagtcat	ggttttgttc	aagatagtca	gtattcaggt	1260
attggcagta	tgcaaaatga	gcaattgagt	gactcctttc	catatgaatt	ttttcaagta	1320
taacttgcaa	gatttaaatc	cttttaaatc	ttgataccac	ctatatagat	gcagcatttt	1380
gtatttgtct	aactggggat	ataatactat	atttatactg	tatatataat	actgactgag	1440
aatataatac	tgtatttgag	aatataaaaa	acttttttca	gggaagaagc	atacaacttt	1500
ggacatagcg	aatacaaaat	tggaagctgt	cataaaaaga	caactcagag	gccaggcgca	1560
ggggctcaca	cctgtaatcc	tagcactttg	ggaggccaag	gcgggtggat	cacttgagac	1620
caggaattcg	agaccagcct	ggccaacatg	gtgaaacccc	gtctctacta	aaaatacaaa	1680
aattagctga	gcatggtggt	acgtgcctgt	actgtcagct	acttgggagg	ctgaggcaca	1740
ataattgttt	gaacccagga	agcagaggtt	gcag			1774

<210> 483 <211> 3024

<212> DNA

<212> DNA

<213> Homo sapiens

<400> 483 egacgeetgt ecetettaga ettgeagete ggteetettg geagagaeee eeegeaggag 60 tgcagcacct tetececaac agacageggg gaggageegg ggcagetete ecetggegtg 120 cagttecage ggeggeagaa ceagegeege ttetecatgg aggaegteag eaagaggete 180 tetetgecca tggatateeg cetgececag gaatteetae agaagetaca gatggagage 240 ccagatctgc ccaagecgct cagecgcatg tecegecggg cetecetgte agacattgge 300 ttttgggaaac tggaaacata cgtgaaactg gacaaactgg gagagggcac ctatgccaca 360. gtottcaaag ggogcagcaa actgacggag aaccttgtgg ccctgaaaga gatccggctg 420 gagcacgagg agggagcgcc ctgcactgcc atccqagagg tqtctctgct qaaqaacctq 480 aagcacgcca atattgtqac cctqcatqac ctcatccaca caqatcqqtc cctcaccctq 540 gtgtttqaqt acctgqacaq tqacctqaaq caqtatctqq accactqtqq qaacctcatq 600 agcatgcaca acqtcaagat tttcatgttc cagctgctcc ggggcctcgc ctactgtcac 660 cacegcaaga teetgeaceg ggaeetgaag ceecagaace tgetcatcaa egagaggggg 720 gagetgaage tggeegaett tggaetggee agggeeaagt eagtgeecae aaagaettae 780 tocaatgagg tggtgaccct gtggtacagg occcccgatg tgctgctggg atccacagag 840 tactccaccc ccattgatat gtggggcgtg ggctgcatcc actacgagat ggccacaggg 900 aggecectet tecegggete cacagteaag gaggagetge acaaaateaa tegeeteete 960 gggaccccca cagaagagac gtggcccggc gtgaccgcct tctctgagtt ccgcacctac 1020 agetteccet getacetece geageegete ateaaceaeg egeceaggtt ggatacggat 1080 ggcatccacc tootgagcag cotgetcotg tatgaatcca agagtegcat gtcagcagag 1140 getgeeetga gteaeteeta etteeggtet etgggagage gtgtgeaeca gettgaagae 1200 actgecteca tettetecet gaaggagate cagetecaga aggacecagg ctacegagge 1260 ttggccttcc agcagccagg acgagggaag aacaggcggc agagcatctt ctgagccacg 1320 cccaccttgc tgtggccaag ggacaagaga tcacatggag cacaaattcg ggtaggatgg 1380 agectgtgtg geecteggag gaetgaagaa egagggetga eagecageet ggaagacege 1440 ttggcagccc ttctggccac ggctgtttct tctttgtgct tcccgtgtgc ctccccagta geocteacet geataceaac coeteettta eccaegttqg ggetggcata agetgettee 1560 1620 otgagaggae atgagggggg ggeggteete gtaccetete ceaccetggt gtttgggeae ctgcgtggga tgcacacgga tgacagaatc aaggcqccaq qatqqqcact ctqccctgga 1680 tacaggetet accetectee eccaggacet geetagtgee agtttggtag tececettte 1740

tggccccttg	gageceacae	acgtttcatc	tttttcccct	ctgagagcaa	gaagagacat	1800
ggcatgttct	ctgggaccct	ggaatcctag	gtacccacat	gtgtgccaaa	gcctacccca	1860
cctggcaggt	gtcccacage	aacagaagga	atagtagtcc	ccactctttc	catcagecet	1920
accctaccct	cattccccga	caccctctgg	cttgaaccat	ggctgagcag	tgccggcata	1980
cgctttgccg	gcatgcttgg	atgcccagct	gtgtccagag	gtggcctggg	accgccagtt	2040
geacgectge	cacctcagec	agcccccgcc	cagctcatca	gtctgaatgg	agttgcctta	2100
aattggcagg	tggtaccgta	ctcactgccc	ttggagctgt	gaccggctcc	tgcctgtcca	2160
ccccttcccg	aggtggctcc	tgcttacctt	atcatcccag	ggctctgatt	agecaggeet	2220
ggtcagggtc	ctggggacgg	cacccagata	tgcagagtca	ccctgacact	ggtgeeggge,	2280
tgacctcage	tecegaagge	tegeacagee	tecceatect	teetteecag	cccttgtggc	2340
tetgtecace	tgateceaat	accagettee	cccagcccct	gccaccccag	agggeggeea	2400
cgacagggag	aggtgtagat	gccaccatct	gagggagagg	aacgtggaac	aggagcaggc	2460
tctgatgctg	agaggcttgc	ctccgggggc	tggaagcctg	ggtggccggg	gcccctgaag	2520
aaggeteece	tctgtatccc	ccaggtctcc	tcaacactgg	gctgatcctg	aatggcacag	2580
gccaagggga	ggccagcctc	gcctttctac	ccaggccccc	tgccctgccc	acctcaggcc	2640
cccaccctcc	actcctcccc	acggtactgt	gaacgtcgtg	tgactcagtg	cagagacaga	2700
taatatattt	aattcatgta	caaaaaaaaa	aaaaaggggg	gcccttttaa	aagaaccctt	2760
ggggggccca	aatttaaccc	gggctggcaa	ggtaaaattt	ttttccttat	ggggggccga	2820
ataaaaacca	acttgggaat	tttgggaaag	aacctttttt	ttgggggggg	gacaaattgg	2880
cccaacctcc	ctccaaaaat	taaaggcttt	agggaaaaaa	aaaatttta	aggggaaaag	2940
ggggaaaaac	aacctccata	teetggeggt	tgaaaagttt	tettteeggg	gtttatttta	3000
aaaaaatttt	ttccccgggg	cctg				3024

<210> 484

<211> 1148

<212> DNA

<213> Homo sapiens

<400> 484

aagetgaagg teettgeaag acettatete teetgteett tatageatee egceateeag 60 agoactgcca ggaacctgca tggtgagcga atgactccca gcagtgcgca ggtgattggg 120 ccttgggacc agagtgaggc tgagataaag gggagcccag ggccagaccc ctgtcaccca 180 catteetgte ceetteeett teeageeage ceagagaeea cageageaca agaggtggee 240 agottaaaaa agtttaattg otgaaaacat ccaaggcagg tgogggccag tocotqoggg 300 getcacacce ceettattqq accateaget etqtqatqce ceetteteet qqetacaaac 360 ctgggaaqta gggcaqctqg teccagqqcc ctqaqactgq tqctqctcta qaaqqcctqq 420 tggggggca gccccaagg ccttgacca gaactggaac agcaggcaag atggggcage 480 qtqqqtqac caaaqatcct qqatqaqqcc aatccaqqct qqqaccaqcc caqqtcaqca 540 600 gtgagaccag gggagacagg gtgcccaggg cctgcccagg gacatgctgc tgaccccccg 660 ccaccetgca eccetggcca catgetageg ggcagetgat gagcagcage tgaccecaga 720 gacagcagag gtgaaaacag tccctgggaa ctgccagagg cccagaggat gtggaagtgc ccacgggaag gcaggagtgc aggggtgaca tgtgccgggg ccagagaggt atcttccagc 780 ttgaggatga gccgtgaggt gtgcactagg aagtggcagc acaggtgagg tggaggtgac 840 gggggggag gctagtccca ctcqtcctcq tccacqcctt caaaqqaqtc ctqqqqqaqt 900 gggtcctccc ggttccccag ttttgccacc atggcattca gcagctcctc cttcttttgc 960 tqqtcaqact tttcttccaq qtactqcqct qaqqatqqqq cccqacqaqc aqqqqcctct eggggggett ggeteaetgg geteatgtea ggaggetgea ggetgagaag ceagggetge 1080 ccattagege ettgeageca ggeeteggea etgageaeag geteceagat cacageegtg 1140 tctgggaa 1148

<210> 485 <211> 1256

<212> DNA <213> Homo sapiens

<400> 485 tttttttttqa aatqaaatqa atcatttaat qaqaatcttc aaactqtqqc actqqctqaq 60 tactaagcaa atccaggga agacgtgaag cccaccaagg cgcacagct caactccggt 120 geological catchgaaat acaacateca agagetegag geetttttac caccegtttg 180 tggagcacct gcacctttct gacaacaact ctcaagccaa ctttcagaga gaaaacatga 240 agggaaaaa tagattteet ttggccagac agetetttet teeteaataa ataggaacea 300 cacttggaac aaaqaqacag cqtqagctcg gtgggggaag cacaagcttt attggctgaa 360 agttcttctc aggagcctgg tctgctggga ctgcatgttc ctggatgggc tcccccaggc 420 ctaageteca ggttteetet ggeetteega aggattttgt gggttaegae caattgatea 480 aagatgactt tttcctggcg cttgctcagc tgcaaaagct tcatggtgtt ttgcaacttc 540 ttttcttgtt caaacaattt tttatgtagt ttggtgacct ctgccttcat ttctccaatc 600 tgctcacagt gaagggggca ctggccatcc tcggggagtg agactctcca gagaagcttc 660 ageogeetyt aggeetette cagggteage ttggccqtge tcacactget cacaacttg 720 ctcaqtqqtq ctqqqtgtqq accetttgtt cccaqetett gaettgtgga getgggagee 780 tettgggttt gaatgteeat tteageaagg agestetgte eetggetgat etgtttgage 840 agggeeteat agteeteaat eaggeeeagg acatggegge cattettget ggeeeacagg 900 tggtggccag tgaccaggcg ggacacacac ggagtgctag ttgccgaact gccactgtcg 960 1020 caggagaggg agtccgtgtc attcccagag agtggaggag tctctgaaac tgtaaaatga gaagtaggat gtaaaatetg tttcaggtaa cactetgegt tcaagaeget tatgatgttg 1080 aagctageta ggagggetag aagaggeeet egtgeecaaa tgecacccaa cacaageeea 1140 gaggggaaaa gaggcacgct cctggacctc tgtatattac cccacactgg gcttatgagt 1200 catcttgtag gagaggetca agteaactca accaacactt atcaaccacc cactcq 1256

<210> 486 <211> 2547 <212> DNA <213> Homo sapiens

<400> 486 ttttttttt ttatatatat atatatattt atttatttt aaaaactcca ggggatgtcc 60 caaaqttaqt aaacaqttct qtttcttqtc ccttttatqq ctqcatqcaq tttcaattqt 120 tcagtacaac agatgaggca tttaaaaggt ctccaacgtc aagaaacact aactcatctc 180 tggcatatca tattttttaa ggcagaagta ttttctgtaa tggttactac cggaggtgtt 240 tactgggtta atttttaggt taaccaggaa ccacacatcc cataggataa ttccatttaa 300 ctgaggttta tatccgtaag agcattacca tagaaaaatt tccctttagc aatttcaaga 360 gacctcagcc accaatatac ctaccttctt tacaatataa aqtqaaatat tactttagat 420 gaaaattttt tqtatcttac ttagaaaaaa ttaaqttgat atttaaaaga attttgattt 480 ttaatcacct tccacaacga tttgatatac cttaaactcc actttcattt tttataagag 540 aatcactttc aagggaaaaa aatggatgtt actatatttt aaaatctgct ttataaaaaa 600 gtgtataaat gtcaatctgc cagatatact tectatecec aacacagetg taacactgac 660 taatggggte atgaccatga agcaaatttt actteetaaa tagaaatgtg taggtggcag 720 aaagcgtatt tttcagcagg agtgattctg ttggatctct ttacaatgtc agagcagttg 780 ttagaaatgt tagtatttta ttcggtttct tgctgtgaag gattatcaca atgttgaagt gatggetgtt cacccagtcg tcatcaccgt catcatetca atettgggaa tcatcagcag 900 tgtcccccac acagagagac aggtatagtg gtgcagttta gtgacaggga atccagtctt agateetgtt tatateacat tittgtgaat tiacacaaaa ticcatitat agetitaaaa ctgtactaca taacacatta ctatactact acaaaatatc cttctctata aatgcactga atattttett gggcatttta ttaggcettt tttagcatta ttacaaatge taacaacaag 1140 atacttcaaa ccaccaaata taaagtcagc ttcttaattt tctgaaattt agttatttga

```
gttaataaga attotgtagg aatactgace catctettt catccaacet teaaaatagt
                                                                      1260
taageetatt tgeecatete acetaacett caaaataqtt aaaacaaaa caaacecaaa
                                                                      1320
ctagctatat ataacaaqaa totttoaatt cocaaactat tqaaaqaccc taaqtcaqcc 1380
aatctatgaa attatacaag atgaaggtga aaaagctgtg ctttttttta aaccattaaa
                                                                      1440
cccagttett ttetettaaa qttqtaaqaa aatqqaaaat etqtttttaa atcatqcaaa
                                                                      1500
gatttaaata agcatttttc tatctgctct aagaaactgt ttcttatctt acaattttaa
                                                                      1560
atattcataa cactcaaact acttttttgt ggccatttat gtttttgaca ctagattgta
                                                                      1620
tggtattatt tagccaagat gtattataat gctaaattat gtataaaata tgatttctqq
                                                                      1680
aatttgtcca tottotattg aagtgccatt attattgcca ggggaactaa aaaaqaaaaa
                                                                      1740
aacagtottg cttgcagcag gtgtctcatg cactactttc ttcaatcctt ttgtgccata
                                                                      1800
gtgggaatet ggacetttga gtgttgcaca tgctgtgtag cacacattgg gcaggatete
                                                                      1860
tatgggttcc ttgaacatga ccctgaatgt gttagctgtc ccatcacaac taaagccggt
                                                                      1920
atcattctgt cccagggttt gctttttctc atattcaatg atctgtatat tcacttgata 1980 atctgtaggg ccatgaatag atccatacaa gccaaatcca actatagaga tccttctatt 2040
aactgtgaat ctgattcgat cactcgtccc actgtaaccc cagcggcttt ctacttgctg
                                                                      2100
gaatctattg atgcagcatt cctttcccct qagacagcat cttqgtcqgt caatqtattc
                                                                      2160
aactoggggt ttagggttga cagtaaaatq aaqaaagagq tttaccactt cacqatctga
                                                                      2220
casaattcca gattgagcag gacctgctgc asattcctca attgtcatca gtgggaaccg
                                                                      2280
gattaaggaa agtgetttte etagaaettt ttgtttatte ecaaaagtea caggtaattg
                                                                      2340
ttgtctctga cattctgctt ctgcccagcg tacaacagct ccaaaaagtc gactttctcg
                                                                      2400
aatactgagt gtgtctctct ctaaaactgc acagagtgta tctataggca aaatacaaaa
                                                                      2460
taaacccaat tagaaatatt ttagctctct aaccaagcaa taccaacaga cacacttata
                                                                      2520
ttaaqttttc aqatctcaac aaaaaat
                                                                      2547
```

<210> 487 <211> 1228 <212> DNA <213> Homo sapiens <220> <221> misc_feature <222> (1)...(1228) <223> n = a,t,c or g

<400> 487

tgcggccgct gttaccacct cagacactgg tctaagtcca gggcagcctg ggatcctac teetettgae eecaaaggee ageaacgtgg getgacacee eteecegggg catetttgga 120 egggteetge atceageagg gatgtggtea tetetgteet etcagggeet gggagecage 180 gggtctggcc gagtgttagg gtggcttcct ggtctccttc cttagcaggg agctggccac 240 agccaaggg ccccctgca caaacctcac gaagttgtcc ccggccaggg gccccatggc 300 gtacaggece teetggeggg tgetetggta ggtgaagggg teeacgteaa tggggtteet 360 cttggcgctc ageggctggt caggatccac tgcaaagtca gcccctgccc caggcaggaa 420 ggagaggtcg gggtgggagc cgatgaggac cagcaccagg gagaccccaa acaccttctc 480 gacaccctcg aggtcctgga acacggcctg gcagtcttcc ttgaagcaca gcagctggtg 540 cctggggagg ctgcggtaac cctcataggg qctqqgcgac aqqatqqact qctcccqcat 600 catctggtgc accttgtggt actcggggta cagcatcttq qqcaqctgqt tqaacaccaq 660 gccagggtcg tccacggccc ggcggaaggc atggatcacc gggatgttgt agtggcgggc 720 gtagaggacc gcgtcggccg ctgacagccc cgcgccaatg atgaggacag ggtctgaggc 780 cggggtcacc gcacccaccc ttgtggcggc ctccagggca gacagctcat ggtggatgaa 840 gggcagggcc tccccgggga tgcccagccg ggccgggctg tcgaacgtgc ctgtggcgag 900 gaccacgttg cgggcccaca gcgagaaggg ctqctqqqcc tqqttcctqg tcagqaaqcc getcacetgg aagagggge tggagteetg qqeeecacaq etqetqqqat eqqqqteee ccactccacg gctgtgacta cagcaccgga cacaaagtta tgccccagac ccttcttgac caegtagtee etgtagtagt gggegatgte eccqqeaqtq qeecqqetqt tqcqaaqaee tottegette ttetgeatee agteettgae eteegaatte caccacactg actagaggte 1200 tacagtgggn ntcaggneng gaccccct

1228

```
<210> 488
     <211> 1410
     <212> DNA
     <213> Homo sapiens
     <220> .
     <221> misc feature
     <222> (1)...(1410)
     <223> n = a,t,c or q
     <400> 488
ttttttttt ttacttttac ataatctcat ttaatttaac cctcacaaca accctgtgag
                                                                    60
gtaggtattt gctccatttt acaaatggag aaatcgaggc acaaaagatt aaacatctta
                                                                   120
ccaaagtctg cacagccact tatatgctgg agctagaatt tgaacccagg tgtgcctcca
                                                                 180
ctttttaata ctagaccaat cttttcacgg gggaagtttc ctagattaac accctcacat
                                                                   240
cttttaagac cattccaaaa cctgcgttct gttttgcaga agccctcact gtgtttctgc 300
tgccctgaaa cagtggaggc agacaaaggt gagtgccaag tgaggaacca taaqaaqtqq
                                                                   360
tagatototg tggagtgcca taagaacoot caagagcott aacaaaggta gttgggggag 420
aggggaagag gtgtttcagc agetetgete ccagcageca ttteetetet ccagggcaaa
                                                                 480
ggggtggggc tgcgaggcca gctgaccaag aaacccctcc agctcctcca gtccaagtcc 540
agcatchttc chacaactat totgeettee acttequett chicettqce teactetatq 600
teatggttac cettaceaac tggttcaggt aagatggagt gggcettaga tacteteetg 660
aagagctagc tattttaagg aaagagcaat tcaaggccat tccagacaca catgggtctg
                                                                   720
ccattatatt tggtgaggag gtagaacagg tctaaaaagct aaggcccttc atattctcta 780
accagageet tiggitacae agetatgagg gageagaaet ggaaaagaee ticateaagg
                                                                   840
gtagetggge cacettetgg gteaaggttg ceteatgetg ggeetgegta etectetate
                                                                  900
tggggctgtt actggcacca ctctgttggc ccccaccca gaaaccccag cccttatct
                                                                   960
tgaggegeeg eegecacege atcatatece cagataacaa atateeteea gtetaagtee 1020
ttttcacaaa ctggggttcc cctgacattg tactcctaga gttggctcaa ggggagctgt
                                                                  1080
ccagcccagc tcaatacctc aaggacacac agggagttat ctccqtttqq qctqaaqtca
                                                                  1140
atactatgaa ctggaagaag tggtcaaaca cagtctaatg tgctqqqcag agtqtctqac
                                                                  1200
teactggage tactgttaca tetgcatece ageteaagag cetaacacec aaatcageag
                                                                  1260
ctcaaagaac caccgctgat cccagcagac agtgtgcacc agecetttec tggctcttgg
                                                                  1320
gettettata teegtgtnee agggetgaae teettatttt cettteteea naggeagage
                                                                  1380
cgagtettea gteeetgttg gtettteece
                                                                  1410
    <210> 489
    <211> 1050
    <212> DNA
    <213> Homo sapiens
    <400> 489
caattgatac acctatcaca tggataccag attcactgga ctgactatta caacgtcggg
                                                                    60
actgggagac cagaattegg cacgagggca gcccacaagt ccctggccgg aqcagaqctq
                                                                   120
aagacgctca aggactttgt gactgtcttg gccaagctgt tccctggacg gccgccagtc
                                                                   180
aagaagetgt tggagatget geaggagtgg etggeeagee tteeeetgga eaggateeee
```

tacaacgccg tgcttgacct ggtcaacaac aagatgcgga tttctggaat attccttact

240

300

aatcacataa	agtgggttgg	atgtcaagga	agccgatctg	agttgagggg	ttacccgtgt	360
tetetetgga	aactgttcca	cactttgact	gttgaageet	cgacccaccc	agatgcactg	420
gttggcacag	gctttgaaga	cgacccccag	gctgtgctgc	agacaatgag	gaggtacgtt	480
cacaccttct	ttgggtgtaa	ggaatgtggt	gagcactttg	aggaaatggc	taaagaatcc	540
atggactcgg	tgaaaacccc	agaccaagcc	atcctctggc	tgtggaagaa	gcataatatg	600
gtgaacggcc	gcctggcagg	tgagaagece	ctgggcatgg	ggggctcagc	acgggcggag	660
ggaggccctg	gtcctgggac	agcaaggacg	gcacggctgc	cgtggggctt.	gtccctgagc	720
tttgcggcct	cgtgccaccc	actgtgctga	cgggatcagg	acttgggtgg	ctgagagetg	780
ccagagetge	agcctttccc	aggetgette	tgtccccggc	tttctagatg	cttctctcac	840
tccgggggct	cttcgacccc	gtggaaatgg	gtgtggctct	ttcttcccc	atcggtaccc	900
actggtagcc	cgttagactc	tgaagatgtt	tttgactctg	gaaagcttgg	aacgtaatta	960
atttttgatg	aggaatttta	gtagtatgga	aatctgttgt	ccaaacgtaa	accaaacctc	1020
tcaaagtgct	ttgttttgtt	aaaaaaaaa				1050

<210> 490 <211> 4797 <212> DNA

<213> Homo sapiens

<400> 490

<400>	490					
tttttttt	ttaaagttta	aacacctttt	atttgaagaa	atattgcttc	tagactttcc	60
tgaagccaga	attgttctat	aaaagtatca	tggaatatta	tacatgatta	aaaaacagag	120
tatgcttcct	aataacttga	aatctttta	caaagcacat	tattcatgat	cataaatatg	180
tttgttctgt	catcccaccg	atgatacaca	catcaggcaa	gcagctaatt	tgaacatatg	240
tacagagtct	atgataaaga	tttaaagtta	ccaaaaagat	tcagctataa	catattaaat	300
tttctttaaa	agagtttacc	ataaacactt	aaagaaaaca	taatttatct	aagcacttga	360
attatctaaa	aataagaaga	aaacctctct	tagggtaagc	aaaaacacat	catcttgggg	420
agctgaataa	aagggtactg	atgactcagt	gaggtaatcc	ctttagctgg	tatttaaaaa	480
cctaatacac	aacaaggata	ttttcaagaa	tacagatttt	caaaagcaat	tttgaactat	540
	gatatcagaa					600
aagaaattaa	cttctcttgt	ggtatgttga	aattgtggag	cattcatgat	tttcttttat	660
	ttggtgtaaa					720
	gaaaaccaaa					780
caagaaaata	acccaaaata	tagcaatctt	aaaggtatga	tgtatgatga	acgctttgag	840
gctaggcaca	gagagagcag	gcaatcttca	ttttgtttac	ttatttattt	attttcacca	900
	tagccatgcc					960
	ctggcaaaag					1020
cttgggggtt	tatttgactt	tgtcacaatg	acagccaaca	gtgagactga	taagcctgta	1080
aaaataaaaa	aataagacta	atcaaataga	catggcattt	taatctcaaa	gtgcaaaatc	1140
atctaactga	aaatgacggc	attgaaaaat	tccagtggtt	aaaaatgaat	caaaacttca	1200
	agtggaagtg					1260
agaaaggcac	cattctagec	atcttgattg	gataacatgt	atatacttat	gtccctacga	1320
tattcaaaag	ataatactgt	tttagtacaa	aacaaacaaa	caagcaaaaa	atcaaaacca	1380
agccaaccca	aatatcccca	gcctttcttt	ctactcttgg	cagatagtaa	attataacga	1440
	tgtgcacacc					1500
	cttggaatgt					1560
gttaaaaaga	aatactgtgt	ttagggtaag	gtaacagttt	ccacctaatc	aagaggagag	1620
	agcgctgcct					1680
accttggtca	acatcttccc	cgctatgctg	gaattacttc	ggtgttctgc	ggtggccatg	1740
gtgaacatct	gatgaactga	aattccatcg	gaatgcacag	gaagatatag	ttgatcttca	1800
aaaatgtcct	ttccaggacc	accatactgg	ggaagttctt	togggtgcct	gcgaatgggc	1860
	ggctgggccc					1920
	tagtctcttc					1980
ttcaaatgat	taacttctgg	aatgtcgtta	ttccattcaa	gtttactctc	tggacttaat	2040
gttggtcggt	tcaaatgcag	ggtttgaagg	t.cagctggca	aggtcaaatg	aggtgttttc	2100
ccaacettat	gccttgggtc	ttcatctgag	t.cagcagagg	ccatctccat	tgacacagcg	2160

tgctcagcag	agacaaccaa	gaacccgtca	ctttgagcag	tttgagtctt	atttgtttta	2220
ttttgctcat	agtgactctt	cagcagtgca	aatactctat	ctaaatcctt	caagtaatta	2280
gtccagtcca	ccagactaag	tctgtagttt	tgtctgtact	catagatgtt	ttcattcaca	2340
	cctctaggcc					2400
ttcccatcca	tcccataact	gtcctctgtg	taggtcatag	cttcctccat	ctttatttcc	2460
aacatcaaga	ttcttaggtc	ttgggttgca	ctgcttatat	ccttgacagc	ttctgagctc	2520
cattagttgt	acgtgtagct	gattcaaaat	gcctcgttct	accgtgtgca	ctgtatttgt	2580
gagctgataa	ggatctgtat	tcatatcaaa	atactccaaa	aagccagtag	caaactcaca	2640
gaaaagaaaa	ttatgcgtct	cattaactgt	acgcaaacac	cagtaggtgt	tattgttaga	2700
actcgtgcaa	gcacagaaag	atcccaggtt	ccagaacggg	gctgtctgcc	agtggttgtt	2760
gtcatgcgtg	aagcaagtga	ggccaggcag	gctgcactct	tececettee	totgeogtet	2820
cttctccttc	ctctccttct	tcctcctacg	gttgttctcc	ttgaaaagtt	gcagtttgct	2880
atctacttcc	tgagcagcct	ccttgaatgg	gtgaagatgg	ctctttaatt	tetettgett	2940
ttttacacct	ttctctttat	tgtaatagct	ttgtttactg	cagctacatt	cctcaggett	3000
ccttctcttc	agatgtcctc	tcacttctct	taaattctta	attttatctt	gcagagette	3060
aatctcttcg	tcaatgtatg	ccttatggtc	cttccacgct	ctggccgatt	ggtacagttc	3120
tctctcacaa	tggatagagt	cattgggaag	aataaaacac	ttgtgtgtca	ctcggacagt	3180
ggtaggtggg	cccacggcgt	tgctgctatc	tgccagcatc	ctgcccctgt	tgccaccact	3240
ggaagcctgg	agatctcttg	gccccttgtg	gccttcatca	tgacgcttag	caatgtttct	3300
tggttgcaac	acttgcaatt	cttcttcttc	ttccagattt	atgtcatata	tttcaccttc	3360
aaattcgacg	gacaaggaac	gtgtctgccg	agtatggaca	aatctgggct	tgtactttgg	3420
agtcccctgg	tttctcaaga	attgccgttg	actctttctt	tggcttctgc	tggcacggta	3480
accagactcc	ctacaactgc	actctttgtc	tttgtcatgg	aagccgcgag	cgtagaggtt	3540
ccgcgtgctc	tgccggactg	tgagcaggtc	actgggtcct	ttacacttgt	gaattcgaag	3600
cttgccagat	gtatcctcaa	tgcattgcca	cttctgcccc	ggttgttcac	aggctgtctg	3660
gtacctggcc	tgctggcata	gttctttgac	ccgttcatat	ttgggcaagt	gatttgactg	3720
ttggatattc	ttgctggatt	cttccttctt	acgtagaaat	ttgcctcttt	ccactaggaa	3780
tgtatcacgc	caaattttgg	ccttcttgtt	tgttcgaaac	ctgttacctg	gcttttctgg	3840
gtccagaagt	ttgaggacag	acttgccgtc	cacatcagga	ggtgtgtcga	gcccagcaat	3900
atccaggatc	gtgggggcca	agtcaatgtt	gagaacgatc	tgtgggacta	ttgatcctgg	3960
ttctacactt	ggaccacgaa	taaaaaaagg	cacacgaata	tcaaagtcat	atggcatgga	4020
tttccccttg	accagtccaa	actgcccaat	atggtaacca	tggtcggcgg	tgtaaatgat	4080
gtaagtattc	tccagctccc	ccgtctccac	gagcatgtta	tacageetet	ccacagaatc	4140
atccactgac	atcaaagtct	ggagcctttt	gcgctgtaga	atgtttgtaa	attccatgtg	4200
gatgggcagc	attggtcctg	tgtactgcat	aatccagtgt	ttatccatat	ttggtgcata	4260
gttataacta	ggagttatgt	gttgggaagc	attggggtac	agtttagaaa	actgtggggc	4320
tgagtcctcg	gggccgtggg	gctcggcgtg	gctgatcacc	atcataacgg	gcctatgggg	4380
atacattete	ttagacattt	tgaagtaatt	aatgeteteg	ttagtgatta	agtctgtgaa	4440
gtagtccttt	gcataatcaa	atccatgctt	ttctttgatg	ccattgcgac	aaacagtgta	4500
attatagaag	cgagaattct	tgattaatcc	aagccattct	cgccacccag	gggggatgta	4560
getgecatta	tattcattga	ggtattttcc	aaaaaaggct	gttctgtagc	cagtgttgtt	4620
aagatataca	gcaaaagtcc	gaggeteatg	catggcctgc	cacgaggggg	aagagcagtt	4680
ctcgttgttg	gtgtagacat	tgtgattgtg	cacatacttc	ccggtgagca	tggaggaccg	4740
tgacgggcag	cacatgggtg	tagtcacaaa	ggcattgatg	aaggtggccc	ccccatg	4797

<210> 491 <211> 2480 <212> DNA <213> Homo sapiens

4400. 491.
Lttltttttt beteachtg geogaethta thitheagga aaaacagaaa aacaaatgta cetethiggit tggaaaggac ocattgacaa catggcacag acgtgagcaa baaatacgca 120 catacattca agtatgcagg ggggcgtae gleechggaga cectgfithe gggcacctgt 180 cectgetete gggtgcggc etgcoccaga 240 cectgetete gggcaccagta 240 bgceteteca beetageetg agagtgggg etagaggac cectectagat ggaactgee 30 00

	ctgtggggcc					360
	ggaggaggca					420
	taggateceg					480
	ctccccagc					540
gttgagctga	gtgaageete	cccagettee	actgaccacc	ccccacttg	ggtgagggtc	600
acagagcctg	gtgctacctc	ccaccctgac	tgggcactgc	tettgetgee	agtaagcatc	660
	ggccctgccc					720
	cctctgcttt					780
tgggactcgg	cggggggcac	ctcagggctg	ccactgcagc	ctggtctgcc	atgegtggte	840
tggggggcct	tetgtggttg	ctgacctctg	gccggggagt	ggggagacag	gcttggaggg	900
	caggacgaag					960
accagetetg	gggggacaga	acatggccct	gtccttggtg	gccccaagag	gcggctcaga	1020
gacacctttg	gggagggtga	gggagacagc	agggtttcac	atttggcagg	gcagggcaga	1080
acgggaaggg	cttgggggag	aggatgcggg	agtctgacag	caccaggtcg	gggccgacat	1140
	ccgtccggcc					1200
	gatggaagca					1260
ctgggtcggg	gaggccgtgg	ggctgcatgc	ccagtgcctg	tecteggeaa	tggcctcggg	1320
aggacgtggc	tgtgactgtg	agaccggcgt	ccaggagtgg	gggcagggtg	ggcctggcgg	1380
tgggcacagg	geettagete	gcaccaggct	ggcactgctg	ctggggctcg	ggegggeege	1440
ctgccccctg	ctccgggccc	cccggcgagg	tccacccgct	gctcgtccat	gegettagee	1500
tgcaccctct	gaatgaggct	gaagaagtcc	tegteeggea	tggtagggcc	ccggggcagt	1560
acgtcaggtg	gtgggcagcg	ctggtcatcg	atcctggagg	actggtactt	gatgagcatg	1620
ttgaagaagt	cgtcccccgg	ctcctggggc	tcgccgtggc	ctcggaggtg	ccctgcattg	1680
ctgtgggtga	ttcgcagccc	cggcaggctg	cccacgctgg	cccgctggtc	gtccagccgg	1740
cggctctggg	agctggcgat	gaggtcgaag	aattcctcgg	tctggggcga	ggccgtcatc	1800
	cgatectgte					1860
	ccaggggaca					1920
aggtcaaaga	agcactcctc	gtccgaagac	ggggccctcg	ggatgctcgt	gcgtggcacg	1980
tgcacccgga	cgtcggcgct	gtccageggg	gagtggctgc	cctcccgggg	cctcctctca	2040
gegteeggge	cttcctggta	cttcctgctc	ctcacgggga	ggggtagcga	gteeetgetg	2100
	agtcccctga					2160
ctcagcaggt	cccaggtctc	cgcgctcagc	ctctgcgtcc	tettgggtet	ggccccctgg	2220
gcctcatage	cggccaggtc	aggettetet	gaggetgeeg	ggctggtcag	gcggccgagc	2280
accagetgea	gctgcgccac	gttcatgcgg	gccgtgagct	ccccatggcg	gtccccgatc	2340
teetgggaga	tctgcaggtg	cttcttggcg	aaggtcaggg	cctgcgctgg	gcgccccatg	2400
	catttcccag	getecageae	gcccggccct	cgcccactct	gtcggccagc	2460
tcctgggcaa	tgagcaggtg					2480

<210> 492 <211> 738

<212> DNA

<213> Homo sapiens

<400> 492 ggaattegge ggeegacetg gecatetttg ceetttgggg geteaagece gtggtetace 60 tgctggccag ctecttcetg ggectgggcc tgcaccccat ctcgggccac ttcgtggccg 120 agcactacat gttcctcaag ggccacgaga cctactccta ctatgggcct ctcaactgga 180 teacetteaa tgtgggetae eacgtggage accaegaett eeceageate eegggetaea 240 acctgccgct ggtgcggaag atcgcgcccg agtactacga ccacctgccg cagcaccact 300 cetgggtgaa ggtgctctgg gattttgtgt ttgaggactc cetggggccc tatgccaggg 360 tgaagegggt gtacaggetg gcaaaagatg gtetgtgage cegggetgee teetggtggt 420 ggccattgtc ccccateggc ccctcagcct tgcaccccag cactgagaag ctacatttcc 480 tteetgtget etggaetget geeettgtee eegaggagtg teeegegeag eeacacetgg 540 caacagcagt gtgggctgca gggctccgtc tgcacgtgga cttgccctgg accttgagtg 600 tggccctccc tttctgggcc tccccaggtg aggcctggcc ctgccccacc atgacctggg 660 tgctctgagc ccacggttcc cacggagctg acttctccgg ggtgcctgtg ccctacatta 720 aacccggcqt ttqtttca 738

<210> 493 <211> 574 <212> DNA <213> Homo sapiens

<400> 493 caagaaagcg gcttcagctg taaaggacct ggccagaatg tggctgtgac cagggcacac 60 cctgactccc aagggaggcg gcggcggcct gagcgggggg cccgaggagg ccaqqtqttt 120 tacaacagcg agtatgggga getgteggag ecaagegagg aggaccaetg eteceegtet 180 gcccgcgtga ctttcttcac agacaacagc tactaagcag catcggacaa gacccccage 240 acttgggggt teaggeeegg eagggeggge agagggetgg aggeeeagge tgggaactea 300 totggttgaa ototggtggc acaggagtgt cetettecet etetgcagac ttcccageta 360 ggaagagcag gactccaggc ccaaggctcc cggaattccg tcaccacgac tggccagggc 420 caegetecag etgeceegge ecetececet gagatteaga tagaatgtga ectetaggea 480 tgatttgcta ggggtgggag cagcatettt etgtcaccat tgtgtgaaca gcagggtcag 540 atgttcctag tgatatcacg ggaagcettg tttc 574

<210> 494 <211> 1179 <212> DNA <213> Homo sapiens <220> <221> misc_feature <222> (1)...(1179) <223> n = a,t,c or g

<400> 494

acgtaattgt gcatgegegg cecatcegea egegggetag caagtactac atcecegagg 60 cogtgtacgg cotgcccgcc tatcoggcct acgcgggcgg cggtggcttt gtgctttccq 120 gggccacgct gcaccgcctg gctggcgcct gtgcgcaqgt cqaqctcttc cccatcqacq 180 acgtetttet gggcatgtgt etgcagegee tgeggeteae geeegageet eaccetgeet 240 teegcacett tggcateece eagcetteag eegegeegea tttgagcace ttegacecet 300 gettttaceg tgagetggtt gtagtgeacg ggetetegge egetgaeate tggettatgt 360 ggegeetget geacgggeeg eatgggeeag eetgtgegea tecacageet gtegetgeag 420 geocetteca atgggactec tagetececa etacagecec aageteetaa eteagaceca 480 gaatggagcc ggtttcccag attattgccg tgtatgtggt tcttccctga tcaccaggtg 540 cetgteteca caggatecca ggggatgggg qttaaqettq qetectqqeq qtecaccetq 600 ctggaaccag ttgaaacccg tgtaatggtg accetttgag cgagccaagg ctgggtggta 660 gatgaccate tettgtecaa caggteccag ageagtggat atgtetggte etectagtag 720 cacagaggtg tgttctggtg tggtggcagg gacttaggga atcctaccac tctgctggat 780 ttggaacece etaggetgac geggacgtat geagaggete teaaggecag geeceacagg 840 gaggtggagg ggctccggcc gccacagcct gaattcatga acctggcagg cactttgcca 900 tageteatet gaaaacagat attatgette ceacaacete teetgggeee aggtgtgget 960 gagcaccagg gatggagcca cacataaggg acaaatgagt qcacqgtcct acctagtctt ttcctcacct tcctgaactt cagacaacna ttggccantc tcccactgga aggctgtate

ccctcaagan qqaqccaagg aatgtttttc ccctqqagat qccacactaa ttaattttcc 1140 ccatatggtt taancaaccc cttgggtgaa aaaanccaa 1179

<210> 495 <211> 900 <212> DNA <213> Homo sapiens

<400> 495 atggettetg etgeetgete eatggacece ategacaget ttgageteet ggateteetg tttgaccggc aggacggcat cctgagacac gtggagctgg gcgagggctg gggtcacgtc aaggaccagg teetgecaaa eccegaetet gacgaettee teageteeat eetgggetet

ggagactcac tgcccagctc cccactctgg tcccccgaag gcagtgatag tggcatctcc gaagacetee eeteegacee eeaggacace eetecacgea geggaceage caceteeeee geoggetgee atcetgeeca geetggeaag gggecetgee teteetatea teetggeaac tettgeteca ecacaacece agggecagtg atecaacaac ageateacet gggggeetec tacctcctgc gacctggggc tgggcactgt caggagctgg tgctcaccga ggatgagaag aagetgetgg ctaaagaagg catcaccetg cecaetcage tgeceetcac taagtacgag gagegagtge tgaaaaaaat cegeeggaaa ateeggaaca ageagtegge gcaagaaage aggaagaaga agaaggaata tategatgge etggagaete ggteetgttg etgteetttg contrateat cotoccetce atcagecett ttggccccaa caaaaccgag agecetgggg

720 actitigogoc tgtacgagtg ttotocagaa ottigoacaa cgatgotgoc tocogogtgg 780 ctgctgatge tgtgccagge tccgaggee caggacccc acccgagget gacacaacce 840 gagaagagto tocaggaago cooqqqqcaq actqqqqctt ccaqqacaco qcqaacotqa 900

60

120

180

240

300

360

420

480

540

600

660

<210> 496 <211> 4235 <212> DNA <213> Homo sapiens

<400> 496

tttgaacact gcaaaagget tttattttat aggcaccact gcaaaatgag gaatcacate 60 aaaacatatc aaatagaaaa taataattta ttttaacttc attttactgt ttgtaactaa 120 teatgatttt gtgaacttge etgtataagt etgtacette aaatetacaa agcaaaagtt 180 tactacaatg agcacttaaa attocacaaa cogtotocat coacaacttt cotgtacatg 240 caaattettt cagtgggetg caatatttge aaacatgett taaactteca taaagatgea 300 agatattttg etttetgeta aaacetttae actetettgg gaacettaac caggaaaatg 360 tttaaatgta tateccaact ctaaacgetg ceggtttggt tatatgtatt aaategttaa 420 ccaccgggtt gggtggtttt gagttgaaac cttcacctaa atgataatat cttaacggtc 480 acgcatatga aacacattca gtaacgtacc attataaaat agggttccat taaaaataca 540 tactggcagt tgtatttgtg ttttaggcag gaaaaaaagc gtgtttaact tttttatatg 600 aatatagttt aaacaagtta ttetgtgaaa gtatgettaa taaaagatet ttetgaaatt 660 taaacacttt atgtaaaagg gtacaggtag aaaagtacaa ttgctatttg aaaaaagctc 720 tgtttgttaa tattgccttc caagatagta agggtgtttt tctctctctt cccttaaaat 780 agacctatga cacccagagt tgtagggttt gcaaatttgg actataaaca tgaaqaccgt acttatetta tatacaaaaa ettgeegeat tqaaegagge aggaatttet aceccagtgg 900 tagtggtete etttatgtae ataatgeaga aqtqaaaatt atacaqtaqt caccqataqq aaggaattgt atactctagt geegteeggg gattttgtge egtgggttaa qaqttettgg

atcgtcatcc	agttatcgaa	gattttctta	ttcctcttct	tcatcatctt	tttgtggctc	1080
			teggetgett			1140
			cgccgctgct			1200
tgetteetet	cctccttgct	ccagtagcgc	cccatcttca	tetegeteae	cgcgtcgtcg	1260
tcggtggtca	tgccgctgcg	ctcttcccgg	atcttcaggg	cgcgctcccg	cagcaggcgg	1320
			gtcccgtcgc			1380
tccatgcgcg	gctccgacgg	ggtgggagag	ctcaggtcct	tgcacatgct	caccaggete	1440
			ttctgctgga			1500
			tgcttgtatg			1560
			gtggggctcc			1620
			tccagctcct			1680
ggggtgccca	cttcgggatc	ttccgtgatg	gagagcagat	tcttggaggc	tggcccgtag	1740
			ctcgggcagc			1800
			gtgagcgggg			1860
			gatttctccg			1920
			ttgtagttgc			1980
			tgctgcatct			2040
aggcactcca	gctcgatgct	gcgcagctct	tcgttcagca	gctccagctc	cttgtccacg	2100
			gggccgctag			2160
			aggagetege			2220
			cactcgggcg			2280
aagggcaggt	cgccgctgcc	caaggtgtcc	tggctgcagg	tgagcttcct	ctgccccgcc	2340
			ccattgttct			2400
			ccgctgtcct			2460
			tegtegtget			2520
			tcctccagca			2580
			ccctcatcca			2640
			ctggttagaa			2700
			atgeggtete			2760
			ctgatataaa			2820
			ttgtcctggc			2880
acttecteca	getecagete	ctccctgtcc	atctcctgat	ggatgtetee	aatgtagtca	2940
			tgctcctctg			3000
			agggccatga			3060
			tctgatggag			3120
ggtgttette	tcaacacctg	caccactatg	ggctccttgg	ctgtcttgaa	agettecaca	3180
			ctgccgttga			3240
			ccactgtcaa			3300
			açacteggee			3360
			agagtcagac			3420
			agcgagtcga			3480
			tgcagctcaa			3540
			cgcagcgcct			3600
			ttgtgcgccc			3660 3720
			aagggtagcc			
acctaggee	aacccccctc	agagagaga	atgtgcgcct gcgggcgcga	ccaegregeg	etgeageage	3780 3840
tecaacaact	actacaactt	as ces cecaa	ccgcagccgc	agregeageg	gggggggggg	3900
atotocagot	tgaggataag	acacttaaca	ggcaggacgt	gagaagagaa	tttaaccasa	3960
addcdaccac	-2723arrrag	caaacsaac+~	ccctcctgca	ggccgagctc	carrage crees	4020
			gtcagcgggt			4020
			ccgtcgaagc			4140
			geggeeggge			4200
	caggccggct			geocceecec	cooccacgag	4235
Joggoodaga	0455009900	auguogeeeg	cgcgc			4435

<210> 497 <211> 498

<212> DNA

<213> Homo sapiens

aggeteaagt etgtgeeegg etettgttee ttteageeat etggtttgtg acacaaaagt	ttagtagaga aatetgeeeg cetgaettea tgatettgga gggeettgea gagtgtttta gteaagteag acettggetg	cctcagcctc aatcctgtgt ggcaaagatt tgactggcct ccaggaaagg ccctgccaa	ccatgitggc caaaagtgct tgaatagaag tcagtctttc ttattttgtttgtgttcaggc gggcccagt tcccacctgg	gggattacag tagtgagagc atctaaaatg gcagtatatt tgggcacagt gcccatcttc	gcgtgagcca gggcatcctt actgaaagac ccttctcttc ggctcaagtc ctgctgaggg	60 122 188 244 300 366 422 489
<210> <211> <212> <213>	421	ıs				
acctggctgc tgcgtgctgg gtgagtgttc tcagtgccag agatgagcac	gcaaggtgct tcatgtctga ccagctggct agccccaggc gggctgtgcc acacccctg	ggtcctgcc caccgccttc cccaggccc aaggcctgct aactcagaga	tcaggotacg ctgcgtgccc gtcctcacca taggocotct gtcaggacoc ccccagagtg cgtatgcaac	gtggcgtggc agtccttcct ctgactggcc taactctcag gtcacgtgat	ctcagggete gccagggggg aggaccette tgaccetagg agcetagcaa	60 120 180 240 300 360 420 421
<210> <211> <212> <213>	572	នេ				
actcagggaa gagcagccag cgcctcatct ctccggagat tttatcaaga agaagatcct tatgtatatg taatgtggcc	ccgggacccc tcctgcccat gccagggcgg cccagagatc gtcgaactct acatgcggca tctgtagtat catgcatgct	egeettetee cageaceage tteettggag eteaggttea acaegatace attiteagtg ttgtagttet tttteaagaa	agcggcagtc aggcgactt gccttcgagc acctggaag cccagaccaa aggaatggca ctgcggtatc ctgggtgaaa gttgccttgc	cgcagaacta agctgcagag atattgagga agaattttaa gaatagtcct gcgacagtac agatctcaca	etgeteeetg gteeegaegg gaaegeeeet gaagatteat tateagtgge ceaagteggg ceaatqtaca	120 180 240 300 420 480 540

<210> 500 <211> 1642 <212> DNA <213> Homo sapiens

<400> 500

atgagacget ttttaageaa agtetaeagt tteecaatga gaaaattaat eetettett qtctttccaq ttqtqaqaca aactcccaca caqcacttta aaaatcaqtt cccaqctctq 120 cactgggaac atgaactagg cetggeette accaagaace gaatgaacta taccaacaaa 180 ttcctgctga tcccagagtc gggagactac ttcatttact cccaggtcac attccgtggg 240 atgacetetg agtgeagtga aateagacaa geaggeegae caaacaagee agacteeate 300 actgtggtca tcaccaaggt aacagacagc taccctgagc caacccagct cctcatgggg 360 accarding totagegaagt aggtageaac togttecage coatetacet eggagecate 420 tteteettge aagaagggga caagetaatg gtgaacgtea gtgacatete tttggtggat 480 tacacaaaag aagataaaac cttctttgga gccttcttac tataggagga gagcaaatat 540 cattatatga aagtoototg coaccgagtt cotaatttto tittgttoaaa tgtaattata 600 accaggggtt ttcttggggc cgggagtagg gggcattcca cagggacaac ggtttagcta 660 tgaaatttgg ggccaaaatt tcacacttca tgtgccttac tgatgagagt actaactgga 720 aaaaggetga agagageaaa tatattatta agatgggttg gaggattgge gagtttetaa 780 atattaagac actgatcact aaatgaatgg atgatctact cgggtcagga ttgaaagaga 840 aatatttcaa cacctcctgc tatacaatgg tcaccagtgg tccagttatt gttcaatttg 900 960 atcataaatt tgcttcaatt caggagcttt gaaggaagtc caaggaaagc tctagaaaac agtataaact ttcagaggca aaatccttca ccaatttttc cacatacttt catgccttgc 1020 ctaaaaaaaa tgaaaagaga gttqgtatgt ctcatgaatg ttcacacaqa agqaqttgqt 1080 tttcatqtca tctacaqcat atqaqaaaaq ctacctttct tttgattatq tacacagata 1140 totaaataaq qaaqtatqaq tttcacatqt atatcaaaaa tacaacaqtt qottqtatto 1200 agtaqaqttt tettgeceae etattttqtg etqqgtteta eettaaccca qaaqacacta 1260 tgaaaaacaa gacagactcc actcaaaatt tatatgaaca ccactagata cttcctgatc 1320 aaacatcaqt caacatactc taaaqaataa ctccaaqtct tqqccaqqcq caqtqqctca 1380 cacctgtaat cccaacactt tgggaggcca aggtgggtgg atcatctaag gccgggagtt 1440 caagaccage etgaccaaeg tggagaaace ccatetetae taaaaataca aaattageeg 1500 ggcgtggtag cgcatggctg taatcctggc tactcaggag gccgaggcag aagaattgct 1560 tgaactgggg aggcagaggt tgcggtgagc ccagatcgcg ccattgcact ccagcctggg 1620 taacaagagc aaaactctgt cc 1642

<210> 501 <211> 2629 <212> DNA <213> Homo sapiens

<400> 501 tttcgtctgg gacgaggtgg cccagcgctc agggtgcgag gagcggtggc tagtgatcga 60 cegtaaggtg tacaacatca gegagttcac cegeeggcat ceagggggct ceegggtcat 120 cagccactac gccgggcagg atgccacgga tccctttgtg gccttccaca tcaacaaggg 180 cettgtgaag aagtatatga acteteteet gattggagaa etgteteeag ageageeeag 240 ctttgagccc accaagaata aagagctgac agatgagttc cgggagctgc gggccacagt 300 ggagcggatg gggctcatga aggccaacca tgtcttcttc ctgctgtacc tgctgcacat 360 cttgctgctg gatggtgcag cctggctcac cctttgggtc tttgggacgt cctttttgcc 420 cttcctcctc tgtgcggtgc tgctcagtgc agttcaggcc caggctggct ggctgcagca 480

tgactttggg	cacctgtcgg	tcttcagcac	ctcaaagtgg	aaccatctgc	tacatcattt	540
	cacctgaagg					600
ccatgccaag	cccaactgct	tccgcaaaga	cccagacatc	aacatgcatc	ccttcttctt	660
tgccttgggg	aagatcctct	ctgtggagct	tgggaaacag	aagaaaaaat	atatgccgta	720
caaccaccag	cacaaatact	tcttcctaat	tgggccccca	gccttgctgc	ctctctactt	780
ccagtggtat	attttctatt	ttgttatcca	gcgaaagaag	tgggtggact	tggcctggat	840
	tacgtccgct					900
	ttcttcatag					960
gatgaaccat	attcccatgc	acattgatca	tgaccggaac	atggactggg	tttccaccca	1020
getecaggee	acatgcaatg	tccacaagtc	tgccttcaat	gactggttca	gtggacacct	1080
caacttccag	attgagcacc	atctttttcc	cacgatgcct	cgacacaatt	accacaaagt	1140
ggctcccctg	gtgcagtcct	tgtgtgccaa	gcatggcata	gagtaccagt	ccaagcccct	1200
getgtcagee	ttcgccgaca	tcatccactc	actaaaggag	tcagggcagc	tctggctaga	1260
tgcctatctt	caccaataac	aacagccacc	ctgcccagtc	tggaagaaga	ggaggaagac	1320
tctggagcca	aagcagaggg	gagcttgagg	gacaatgcca	ctatagttta	atactcagag	1380
	ttggggacat					1440
acagttctaa	gacccaaagt	ggggggtgga	cacagaagtc	cctatgaggg	aaggagctgt	1500
tggggcaggg	gtgtaaatta	tttcctttt	ctagtttggc	acatgcaggt	agttggtgaa	1560
cagagagaac	caggagggta	acagaagagg	agggacctac	tgaacccaga	gtcaggaaga	1620
gatttaacac	taaaattcca	ctcatgccgg	gegtggtgge	acgcgcctgt	aatcccagct	1680
acccaggagg	ctgaggcagg	agaatcgctt	gaaccgggga	ggtggaggtt	gcagtgagct	1740
gagatcacgc	cattgtactc	cagcctgggc	gacaaagcaa	gactccatct	caaaaaataa	1800
ataaataaaa	aaataaaata	aaatggtctg	gatttggtca	acaccttatt	cagtaaatcc	1860
ttaatttacc	ttgagacata	caaagacatt	cttttaaaga	gctattttct	tggtattgca	1920
	ttttaaagca					1980
aatccattta	gcaaatgttg	caaatcagct	tccaccaata	aaacgtagaa	atctgtgaaa	2040
	cgtgtcagtt					2100
	tatatatggg					2160
ttctctggct	tctaatgact	atagagcaat	ttcgaatatg	agccatgttt	ctatgcagaa	2220
	atgccttaaa					2280
	ttgagcttac					2340
	cacaaaggta					2400
	aaatccaccg					2460
	aaacatgtgt					2520
	agcaaatatt				actgtgctca	2580
actgggcttc	tggtaatcta	ttgatatgct	ggttgtactt	caacttcag		2629

<210> 502 <211> 997 <212> DNA

<213> Homo sapiens

<400> 502 cgttctctcc tgcagggaaa gctcacaact cctcacagcg atctggtatc ttgagcgtca 60 gtttctggcc gaaactgggg gctcctgact gaactccctc ccacctagaa aaccttctgt 120 geagtetgat tgetecaaca cecacagage aggatteagg tateceggag acettgggag 180 gtecceatee agaggtetge tgteetgeea ggettgggge ageagggaet gggaeceeae 240 tcagacctct ctggggcaaa tgttttggtt ctcacaacag ccctagtgaa atcaatccta 300 gatactccca tttggtccca ccaaggccat ttaatttctc tgtaaagggt aagatgacac 360 aaaagagcca actatggaaa cggtgaggtg ggagtctgaa ccgatttagc tgttctcagg 420 gcgcacaggg tgttgacggt ggttttcatc tgccacctgc ctccttgaga cccagctggc 480 ctgagtgtgc acgaaatggg acctteteet tgggtccaec aggctgggag gcacccctag 540 gtaccegget ceteateaca geggeageee teteggttee acatetggtt eteetgacga 600 agcogotggt tttcggtccg gagcototgg acctcggcag ccagctcctc cacctggcgg 660 caggactgct ggccggtgca cgcctgcagc tgctgcagcc tcctagtctc ctcctccgcc 720 tgcgacagcc gettetecag etccaggtag tetegcacca geteetgett getgeggece 780

tgcaggctct	cggtgtggaa	gcgttcgtaa	gtctcagaga	agtectteeg	ctggaactca	840
ccgtgcgctc	ggccccgccc	atcactgtcc	ccggcctcac	tetecceact	ggaacctggg	900
tgggagatcc	catggggcac	atccaagttg	ggeteeteeg	ggtccctgtc	attcatcagg	960
aactgggtgg	tgttgtaggg	aattccacca	cactgga			997

<210> 503 <211> 1586 <212> DNA

<213> Homo sapiens

<400> 503 aaatgcacat ctcatggcag ctaagccaca tggctgggat ttaaagcctt tagagccagc 60 ccatggottt agetacetca etatgetget teacaaacet tgeteetgtg taaaactata 120 ttctcagtgt agggcagaga ggtctaacac caacataagg tactagcagt gtttcccgta 180 ttgacaggaa tacttaactc aataattett ttetttteea tttagtaaca gttgtgatga 240 ctatgtttct attctaagta attcctgtat tctacagcag atactttgtc agcaatacta 300 agggaagaaa caaagttgaa cogtttottt aataatgotg atotactttt tgttgaattt 360 gtattttatt tcaagtgtca aagaaatcat ctttgtttat ttagatgaaa ccaaacacta 420 cacatttaca ctcacactgc ttccaggacc caagggtttc acagaccatt tgcctacctg 480 gttettteet eteetettte cagtgattte tagaatacce ttteaaagga ceacatgaat 540 atacgaactg taaaattcaa ctttgatctt ttgcgaaatg ttttatttac tgcttaaaat 600 ctaggtgggt ggatatattc atgtatgcat atattgatag attaatacaa acataagtat 660 gtatttaaat tgaaggataa gtaaagtgag agtacaacag ccccattctt agttaaaaag 720 aaaagaaaaa gacaagagca agccactgcc accacaggta ccagcactta aatttgtcag 780 caggetgace aaagagtgge etgtetgttg geatteateg gacatggeag etceetteag 840 ctctccagtg agtttcaagt tcagagcact ttcagtcctt gtcttgttta tctattactg 900 aagggtttct aggaaggttt agcagtgctt caattttctt agcatcattc tcaggttcat 960 cttcctgtaa actactttca attttctcag ggaggtgctc agtaacttgt agtctgcctt 1020 tecactette cagttttage teatggagtg cetttegate ettetgtttt ettteetgaa 1080 cagtotcaco agagtactto tgaaatgoca toagcaggoo tootacagga gtgcccagca 1140 aggetecaat tatgecaeca gecaecagge caegeaggee taegtttate etaaaaagae 1200 ttcccgtgac agtctttgcc aaacagctcc cggaggcggt cccatccaga ttccqqqtaa 1260 tagggetetg ggacgtaggg aagcegette tgacgeteet caaggactte cqaateqgca 1320 gtcacagctt cggcagcaaa gactcgggga aataggcaca atgctctaca gagaaagctc 1380 egeggtgeeg gtggeggeac etceatggee tteteteqae etacqqaeaa aettqaqeqe 1440 teaggactte aagteetege qqaeqtqeeq eqqqaqaqeq taactqtaeq aqqtqaqaat 1500 cogtgoattt gacccaggtt aaccctctgc cagagggetc gacacccaca cettcagtec 1560 coggectoge tttgcggacg cgtggg

1586

<210> 504 <211> 1442 <212> DNA

<213> Homo sapiens

<400> 504 eggggggcgt ggggctgggc ccagceggac gegaceteag cetgeggegg etaaetgeeg

60 gtaggegtet gtgtgegeeg ceaagteggt ggggegggga egegaggtgt ggatggggg 120 togeettgac etetgeetca gecagtageg caqtetegge eteqeegtta eggagatggt 180

gecetgggtg	cggacgatgg	ggcagaagct	gaagcagcgg	ctgcgactgg	acgtgggacg	240
cgagatctgc	cgccagtacc	cgctgttctg	cttcctgctg	ctctgtctca	gegeegeete	300
	aacaggtata					360
	tactgctcac					420
aaaatacaaa	cccaagcagt	taggacttca	ggaattattt	cctcaaggtc	atagctgtgc	480
tgtttgtggt	aaagtgaaat	gtaaacgaca	taggccttct	ttgctacttg	aaaactacca	540
gccatggcta	gacctgaaaa	tttcttccaa	ggttgatgca	teteteteag	aggttcttga	600
attagtgttg	gaaaactttg	tttatccgtg	gtacagggat	gtgacagatg	atgaatcctt	660
tgttgatgaa	ctgagaataa	cattacgttt	ttttgcatct	gtcttaataa	gaaggattca	720
caaggtggat	attccatcta	ttataaccaa	gaaactatta	aaagcagcaa	tgaagcatat	780
agaagtgata	gttaaagcca	gacagaaagt	aaaaaataca	gagtttttac	agcaagctgc	840
tttagaagaa	tatggtccag	agcttcatgt	tgctttgaga	agtcgaagag	atgaattgca	900
ctatttaagg	aaacttactg	aactgctttt	tccttatatt	ttgcctccta	aagcaacaga	960
ctgcagatct	ctgaccttac	ttataagaga	gattctgtct	ggctctgtgt	tecttectte	1020
tttggatttc	ctagctgatc	cagatactgt	gaatcatttg	cttatcatct	tcatagatga	1080
cagtccacct	gaaaaagcaa	ctgaaccggc	ttctcctttg	gttccattct	tgcagaaatt	1140
tgcagaacct	agaaataaaa	agccatctgt	gctgaagtta	gaattgaagc	aaatcagaga	1200
gcaacaagat	cttttatttc	gttttatgaa	ctttctgaaa	caagaaggcg	cagtgcacgt	1260
gttgcacgtt	ttgtttgact	gtggaggaat	ttaatgatag	aattttacga	ccagaattat	1320
caaatggatg	aaatgctgtc	tcttcatgaa	gaattgcaga	agatttataa	aacatactgt	1380
ttggatgaaa	gtattgacca	aattagattt	gatcccttca	ttggtagaag	agattccaag	1440
						1/1/15

<210> 505 <211> 1284

<212> DNA

<213> Homo sapiens

<400> 505

ccagagoctg gotgaggtec tgcagcaget gggggcctcc tctgagetec aggcagtact 60 cagetacate treeceactt acqqtqteac ceccaaceac aqtqcetttt ccatgcacqc 120 cctgctggtc aaccactaca tgaaaqqaqq cttttatccc cqaqqqqtta ccaqtqaaat 180 tgccttccac accatccctq tgattcagcq ggctgggggc gctqtcctca caaaqqccac 240 tgtgcagagt gtgttgctgg actcagctgg gaaagcctgt ggtgtcagtg tgaagaaggg 300 gcatgaggtg gtgaacatct attgccccat cgtggtctcc aacgcaggac tgttcaacac 360 ctatgaacac ctactgccgg ggaacgcccg ctgcctgcca ggtgtgaagc agcaactggg 420 gaeggtgegg eeeggettag geatgacete tgtttteate tgeetgegag geaccaagga 480 agacetgeat etgeegteea ecaactaeta tgtttaetat gacaeggaca tggaceagge 540 gatggaggg tacgtotoca tgcccaggga agaggctgcg gaacacatco otottotott 600 cttcgctttc ccatcagcca aagatccgac ctgggaggac cgattcccag gccggtccac 660 720 catgatcatg ctcataccca ctgcctacga gtggtttgag gagtggcagg cggagctgaa agggaaageg gggeagtgac tatgagaeet teaaaaacte etttgtggaa geetetatgt cagtggtcct gaaactgttc ccacagctgg aggggaaggt ggagagtgtg actgcaggat 840 ccccactcac caaccagtto tatetggget geteccegag gtgcctgcta eggggetgac 900 catgacetgg geogeetgea ceettgtgtg atggeeteet tgagggeeca gageeceate 960 eccaacetet atetgacagg ccaggatate tteacetgtg gactggtegg ggeeetgeaa 1020 1080 ggtgccctgc tgtgcagcag caccatcctg aagcggaact tgtactcaga ccttaagaat cttgatteta ggatcegggc acagaagaaa aagaattagt tecatcaggg aggagtcaga 1140 ggaatttgcc caatggctgg ggcatctccc ttgacttacc cataatgtct ttctgcatta 1200 qttccttqca cgtataaagc actctaattt gqatctgatg cctgaagaga ggcctagtta 1260 aatcacaatt ccgaatctgg ggcc 1284

<210> 506 <211> 1757 <212> DNA <213> Homo sapiens

<400> 506

tttttttttt ttcagagctt aaaaaccaaa aggcagaaaa tagactttat tccaagacag 60 atttgtaaaa gatgttttta aagggaaagg caagtcacgc tactaaatca aacattgttc 120 acaatttotg gatottoctc ctccgcctgg cactgcagct gagocttggc ggatatgctc 180 ggggccctcg gcgcagagga acttagcctc gattctcttc ctgaggggct tcttaacttt 240 tecaagecag geagtgageg tggtgggagg etggggetgg tgcetgegga eagetecaga 300 tggaatccca ggccacggtg cttctagtgt ccccccagcg agcttgcggt gtggcaggcg 360 gccaggaagg gccatgagca gggtggcctg aatgaaaacc gagggccgaa gccagcctga 420 ctccctcgcc taagctgggg ctcggtccga ggcacacgca tggccttggc cagacacaaa 480 ccaagagact gccatgacag acagagcaga aacctcccga gcactqtqtt caaqctaagc 540 tttcctaaga cgggcttctc aggcgagacg tgacaccaga caccgtcgca tgttacttgg 600 agagaacaga gacgtgcggg ccacagcggc ccaccaaagg ctgccatcca agctgagttc 660 egeaggeete acetgeaget ggagagggae ettgecetga teeteetggt aggtaceege 720 taagggattc aggacagagc gtcacactgc acgcagggtc ctccgccacc accatccaag 780 aaccccgggg ggctggccac gcgctggcct ctgccaagga gtgccagtgg ttcccgggac 840 ggggccgccc aagcaggtga gggaggttta gatgaatgac ttggccaggg tcaccatgtg 900 gtccacgcca catgccacgt ccacaggctc cccaggcatc gtcaccctcc atgggaaata 960 ctggtcctcc aggcgaccga ttcccaggca ccctcggatg ttcttgcccc atacaacaq 1020 ctctcctttg ttggtcagtg cagcaaagtg gctgagtcca catcggatgc gggaaacctg 1080 gatttctggg ttgaactccg tcaagccaaa gagagtgggt ggaatcattt caqqqacqqc 1140 actttccact aggtttggac ctttcccaag aattccatag ccccagacaa aaacatgtcc 1200 tteteegttt aacactgeac agecegtgee acegeatgea geetgtegea eetteeceac 1260 teetgagaag tgtaageage ggggeacatt cacetgtgtg qaqteagtga caqaggeag 1320 ctgcaggtac tccgagtttc cccaaccaaa aagtcctccg tcggcggaca cggccaggca 1380 gcaatcaccg taggtggcaa cttggataac gttcactccc gccaggtctc cacccagctt 1440 ggtgggcgag ctggtgatat tgtagtgacc cagacctgtt tgcccatcag caccccatcc 1500 acaagaatag acttotoott tatoogtoag gaacagacta tgatootgac cacaggogac 1560 ctggaccacc tggccatcga agtcctgcat cctgtggact ctgtgacttt cactgtaaat 1620 ttcattttcg accaectttc ttccacattg cccataagaa ttgtttccca tgctgaagac 1680 tectteeetg teagteaaca caagagagtg ageteggeeg caggagaett geageaceeg 1740 tgtctcctga ggtctgt 1757

<210> 507 <211> 618 <212> DNA <213> Homo sapiens

<400> 507

gaattottga aggaaaagga gaaattagaa atggagttag cagcagtgcg gactgcaagt 60 120 gtcatcaagc tggaagagga gttacgagag aagcaagcat atgttgagaa agttgagaag 180 ctgcagcagg ccctgaccca gctgcagtct gcatgtgaga agcgagaaca gatggagcgg 240 agactgcgga cttggctgga gagagagctg gatgcactga gaacccagca gaaacatgga 300 aatggccagc cagccaacat geeggaatac aatgeeecag ceeteetgga aettgtgegg 360 gagaaggagg ageggateet ggeeetggag geegacatga caaagtggga geagaagtae 420 ctggaggaga gcaccatccg acactttgcc atgaatgccg cagccactgc agcagctgag 480 agggacacca cgatcatcaa ccactcacgg aatggcagct acggagagag ctcgctggag 540

gcccacatct ggcaagagga ggaggaggtg gtgcaggcca acagaaggtg tcaggacatg 600 gaatacacta ttaaaaat 618

<210> 508 <211> 2214 <212> DNA <213> Homo sapiens

<400> 508

atgeaggegg teeggecae tgeeteteag teeetgteet gegeeegege geeeegggag 60 cotaccoago acgogotocg ogcocactgg ttocctocag cogcogocgt ccagocgagt 120 coccactoog gagtogoogo tgoogogggg acatggtoot otgogttoag gggtgagcac 180 ccccttgtaa gctcagggct actgttgggt gtcagggaac aaagttttag actgctgcgc 240 tocaaagogg gcacacacat gtacctagaa cacaccagoc actgtoccca ccatgatgat 300 gacacageca tggacacace cetgeecaga cetegeeett tgetggetgt ggageggaet 360 gggcagcggc ccctgtgggc cccgtccctg gaactgccca agccagacat gcagcccttg 420 cotgotgggg cottoctoga ggaggtggca gagggtacco caqcocaqac agagagtgac 480 ccaaaggtgc tggacccaga ggaggatctg ctgtgcatag ccaagacctt ctcctacctt 540 cgggaatetg getggtattg gggttecatt acggccagcg aggcccgaca acacctccag 600 aagatgccag aaggcacgtt cttagtacgt gacagcacgc accccagcta cctgttcacg 660 ctgtcagtga aaaccacteg tggccccacc aatgtacgca ttgagtatgc tgagtccagc 720 threegtetgg actecaactg cttgtccagg ccacgeatec tggcctttcc ggatgtggtc 780 agcettgtge agcactatgt ggeeteetge actgetgata ceegaagega cageeegat 840 cetgetecca ecceggeest gestatgest aaggaggatg egestagtga eccageactg 900 cotgetecte caccagecae tgetgtacae etaaaactgg tgeagecett tgtacgcaga 960 agcagtgccc gcagcctgca acacctgtgc cgccttgtca tcaaccqtct qqtqqccqac 1020 gtggactgcc tgccactgcc ccggcgcatg gccgactacc tccgacagta ccccttccag 1080 ctotgactgt acggggcaat ctgcccaccc tcacccagtc gcaccctgga ggggacatca 1140 geoccagetg gacttgggee eccaetgtee etectecagg cateetggtg cetgeatace 1200 tetggcaget ggcccaggaa gagccagcaa gagcaaggca tgggagaggg gaggtgtcac 1260 acaacttgga ggtaaatgcc cccaggccgc atgtggcttc attatactga gccatgtgtc 1320 agaggatggg gagacaggca ggacettgte teacetgtgg getgggeeca gacetecaet 1380 egettgeetg ceetggeeac etgaactgta tgggeactet cagecetggt ttttcaatee 1440 ccagggtcgg gtaggacccc tactggcagc cagcctctgt ttctgggagg atgacatgca gaggaactga gatcgacagt gactagtgac cccttgttga ggggtaagcc aggctagggg 1560 actgcacaat tatacactat ttatttattt attctccttg gggttggtgt cagggggag 1620 ccaaccccac ctctatgccc tgagccctgg tagtccagag accccaactc tgccctggct 1680 tetetggtte ttecetgtgg aaageceate etgagacate ttgetggaac caaggeaate 1740 ctggatgtcc tggtactgac ccacccqtct qtgaatqtqt ccactctctt ctgccccag 1800 ccatatttgg ggaggatgga caactacaat aggtaagaaa atgcagccgg agcctcagtc 1860 cccagcagag cctgtgtctc acccectcac aggacagage tgtatetgca tagagetgqt 1920 ctcactgtgg ccgcaggccc cggggggagt gcctgtgctg tcaggaagag ggggtqctqq 1980 tttgagggcc gccactgcag ttctgctagg tctgcttcct gcccaggaag gtgcctgcac 2040 atgagaggag agaaatacac gtctgataag acttcatgaa ataataatta tagcaaagaa 2100 cagtitiggig gictittoto ticcactgat tittetgiaa tgacattata cettiattac 2160 ctctttattt tattacctct ataataaaat gatacctttc atgtaaaaaa aaaa

<210> 509 <211> 2355

<212> DNA

<213> Homo sapiens

2214

<400>	509					
tttcgttgat	atcttccaga	gatggaaaga	gtgcagggga	aagagccctg	cccaggcgga	60
actctcctat	ctgaataaag	cgaagtggct	ggaaatgtat	ggggtagaca	tgcacgttgt	120
caggggaaga	gatggctgtg	aatattetet	tggactgacc	ccgacaggca	tattaatctt	180
	aacaaaatag					240
aaagagcaaa	ttgacactcg	tggtggtcga	ggatgatgat	cagggacgtg	agcaagagca	300
cacgtttgtg	ttccggttag	acagtgccag	gacctgcaaa	cacctttgga	agtgtgcagt	360
tgagcaccac	gcattcttcc	gactgcggac	gccaggaaac	agcaaatcca	atagateega	420
ctttatcagg	ctgggctctc	gcttcagatt	cagtgggcgg	acagaatatc	aagctacaca	480
tggctccagg	ttacgaagaa	ccagcacctt	tgagaggaag	cctagtaaac	gttatccatc	540
ccggagacat	tcaacgttca	aagcaagcaa	cccagtgata	gcagcccagc	tetgetetaa	600
aacaaatcca	gaagtccata	attaccagcc	tcaatatcat	cctaatatcc	atcccagcca	660
geceeggtgg	catcctcact	ctccaaatgt	caggccatcc	tttcaggatg	acaggtcgca	720
	teggecagtg					780
	ggagggatgc					840
agagactgaa	gcatctctct	tccattcacc	ttcatagttt	cattgcattc	catgaaaagt	900
gtcttggcct	cagatggatg	gatgtgtttg	gacgagtgtc	tttaaggagt	agtcctgaaa	960
ggtgtttttg	gtgtccatgt	aaatatttga	agataaaacc	actatagett	gtcataattt	1020
actgttgact	gcattctcat	taaaatgaag	gtaaaggete	aggaatcata	ttgatgttct	1080
gattttaaaa	ttggagtcaa	agtctatgtt	tatcatttta	ctatgttcct	gatgttcttt	1140
gttatttaat	taatgggagc	aaataaaacc	agaagagctt	gggaagattg	ctcagcatat	1200
	tagaagttga					1260
tcatttcccc	ttcattgacc	tcattttccc	catctgaaaa	gagagggttg	gactaagtga	1320
	cctttccaac					1380
gttgaggaca	tacattcaaa	ctaattttat	cacaaggaaa	actgcaatac	ccacttcctt	1440
gacagagtta	ctcctttcag	aagctaaata	aagtatataa	cttattagat	gttatataga	1500
tacaggggga	ctttgaattt	cacatcttaa	agcagttgag	ctactttgaa	tttaagcagt	1560
cgtactaatc	ttaaattgca	tagcatttgt	tttgatcgaa	tttgctgctc	aagtatggga	1620
	atgtcttaat					1680
	cactgtcaga					1740
	aatcaagatc					1800
	gcattctgta					1860
	aatatgttgt					1920
atttcaagcc	ctgagtcaaa	cattttttc	tcttaataat	agacctgaaa	tgttttatta	1980
gtatttctgt	gaaatcagtt	gattcttgtg	ccatttttgt	atatgtaatt	gtaattttgc	2040
	ccctctaaaa					2100
gatcttttt	ggctactgca	aaaatctatt	cagcaagaag	gtatcagctg	catacettge	2160
acagtggagc	tgactaccta	taaactctcc	ctaaggcatt	tgtttacagg	tgtattccat	2220
tttagcagac	gttctgatgc	tcagtgtatg	tgctgcatac	aaataaatgt	gttctgaatc	2280
ttttcatctt	attgatagca	ttttaacaaa	tgtgtttcca	aggaataaag	attattcttg	2340
cttttaaaaa	aaaaa					2355

```
<210> 510
<211> 775
```

<212> DNA

<213> Homo sapiens

<400> 510 . toggiggaatt cgattaate agaaactgac atggcgatca agacaacagg atcgagaaaa 60 ctgtgctatg aaaggcaagc ataaagatga atgcaccaac titatcaaag tattigticc 120 aagaaacgat gagatggtit tigtittgtgg taccaatgca ticaatccca tigtgtagata 240 ctacaagggta agtatattit atgtgatatg citcittiga teaactitic tecciticact 240

gatatgctgt	tagagttgaa	atctttctgc	tttccagtaa	tttgttttat	ctctagtgca	300
atgaaagaat	aaagacagaa	ttetteaaat	ggaattttaa	tacaaataaa	atagtattgc	360
cttcaaacgg	gcacgttgaa	tagatatgac	actggctatt	tacttttctt	ttgtagttga	420
gtaccttata	atatgatggg	gaagaaatta	gtggcctggc	aagatgccca	tttgatgcca	480
gacaaaccaa	tggtgccctc	tttgctgatg	ggaagetgta	ttctgccaca	gtggctgact	540
tettggecag	cgatgccgtt	atttatcgaa	gcatgggtga	tggatctgcc	cttcgcacaa	600
taaaatatga	ttccaaatgg	ataaaagagc	ccactttctt	tatgccataa	aaatggaact	660
atgtctattt	ttcttttcga	gaaatcgtgg	caacataata	attaggcagg	ctgtggattc	720
ccggtggccc	gatatgaaaa	acaactggtt	ggtcccacgg	tctgagaaca	ttgat	775

<210> 511 <211> 1553 <212> DNA

<213> Homo sapiens

<400> 511 tttttttttt ttaagtttga ageettgeee aagetttaat gteatgetaa ceagttacet 60 tgttagaget gggaageeae ettttgetea aaatgeagae ttetgeettt gaaaacacae 120 cacacctgat tttaagtgct taaaggacag aaaatgtcgt tgctttaaat tgttgctttg 180 ttcagagaca tctggatttg ctgtatccat acaagcaaaa gcttttccaa ttccagaatc 240 aacccacact aattigttat tgcctcgtac tgtattggcc cagctgtaat caactcagca 300 ggettttggt tgtaaattca agtggaaatt gagttggtet tatttqtqcc cqttqatatc 360 tgagggctgt gaggaagatg gccagtaggt caaagggaat agtgttgaaa agctgaccag 420 tactgggcag gtggccggct gtccctcagg caccacaacg ccgagccacg gtaaggggca 480 tgagccacat ttgcagaata tagccagagt ccttccagaa cctcctgatt cgcgccagga 540 ggcatcccag ggcacacaag tgtcaagggc ctactcaggt gettggcaga getetetgtg 600 tgttattaac agaagaggct acggcttaga gtggaaagga gcatgtgatg gctagcggtg 660 ggcagcctgt gtactctgcc aagtttgggt ggtccaggtc cccacgattt ctgtgtggag 720 ggttgtccgg catctggcca ctaggggggc cggtggttct cacacacacg cagcggggct 780 cettageace tggettatac agetteetgg ggacgecaat ceagtetetg etcacacete 840 cactettetg ggageaccag ageoggetge ceetggetga getecactee gegttgeacq 900 gegggaatgt etgettetet tgeagetgta gtttgttgge etceaageet etggtgateg 960 cagettetae etgggteagt geoggggtgg geageceate eteteogtag aacegteetg 1020 traccetore aacacacaca taattettet catagaatga aagceaattg tgaagtgtca 1080 gcatctcagc ggctgacagg tcggatacgt catccacgag gcctgcttca gaacagtccc 1140 cggtcacgaa agctctggat gcgtctcggc ctgcgaagcc gctatagtgg gacccaggct 1200 cqtaqtqcct ccggccggag qacacatcgt agacacggcc gagcaacgcc aagtacaggc 1260 coggqtcccc tgggccgccg cggtagcgag acageteete cggtatgaaa aggegaaage 1320 cagegeggg accecaceag eccataagee gtgetgecat tacegetget geggetacag ccaggeccaa caaaagecca eggeeteege aceteaacat etatatagge ccaecegete 1440 egeactteeg aggttgeege etetatetae agetaagatg geegagaege egagegtgae 1500 gtcateggeg egegegetet egetetetet etegegeget agtgetegeg ete 1553

<210> 512 <211> 1260 <212> DNA

<213> Homo sapiens

<400>	512					
tccttctctg	gccttgccct	tgccctgttc	cctttctggt	cctgccatgt	ttctggccct	60
gccctgtcca	tgtcctggac	ctgactctgg	ccctggacct	ccctgtccct	gccctgccat	120
accttggccc	gttccttgct	ctacactgac	cctgccctgc	cttggccctg	tgctacccta	180
gccctgccct	ggccttctgc	tgaccctgat	cctgccatgg	ccctggccct	gccatgtccc	240
tgccctggcc	ctggttctgc	cctgcttctg	gccctggcct	tggtcctctc	atgtccctgg	300
ctgtgaccct	gcccctggtt	tttctctggc	catgaccctg	ccccggttct	gtcctatccc	360
tggccctgtc	tcagttctgt	cctagccctg	gcctttcaca	gtactttatg	cttagtaagg	420
gctccatggt	gtctgtgagt	tgaatgttgt	attcatagta	tctgccaaaa	cagaaagaaa	480
aaaaacaaaa	tattttgata	agaagttaaa	gctttgtata	taatatgcct	tgaattgtaa	540
gtgcctgtta	ttagttgtat	tacatatagg	tcatggtttt	gtacacataa	ctccaaacca	600
ttgatactgt	taaaagaata	tatgaatata	tgaaagaatg	tataaacgta	agaatgtatc	660
agtatctaat	gacctttcca	aattaatttt	tatttttagc	tctgttagat	ttttctcagt	720
gtaacaaatg	tttattccta	tgtaattaag	ggcgtatttc	ctgtacagaa	tattcatatt	780
acctaattga	aaattatatg	atacaaaaat	ataatactat	ttttagccag	gcatggtggc	840
tcatacctgt	aatcccaaca	ttttgagagg	ccacgtttgg	agaatcattt	gagtccagga	900
gttgaccagc	ctgggcaaca	tagtgagacc	ttgtccttat	taaataaata	aataaataaa	960
taggttgggc	actgtggctc	atatctgtca	tcccagcatt	ttgggttgcc	caatgcagga	1020
ggattgcttg	agececagga	gtttgagacc	agcctgggca	gaatagcaag	actccatctc	1080
tacaaataat	aaaatattaa	ccaggtgtgg	tggtgtgcac	ctggggtacc	agccacctgg	1140
gaggctaagg	tgggaggttt	gctcgaggct	gcagtgaact	gtgaatgcac	cactgcattc	1200
cagcctaggc	catagaacag	gatettgtet	ataaataaag	aaataagtaa	aaatataaat	1260

<210> 513

<211> 1596

<212> DNA

<213> Homo sapiens

<400> 513

cteeggegge gegteeeeeg agettggtac ggeteageee gteteeeeeg aageegegeg 60 cecgegeecg egececteag teggtggage cegeageece cettgtggee egeggeaget 120 coccepccede teggecogeg coegceatgq teegteeqeq ceqtqceeq taccqcteeq 180 gegeeggggg ceeecteggg ggtegeggge geeeteegeg geeectegtg gtaegegeg 240 teegetegeg eteetggeet gecageeece gaggeeegea geeteegegg gateegggee 300 cgctcggccc ctcccatgga aggtgctcgg gtcttcgggg cactgggtcc catcggtccc 360 tectcacety qqctcaccet cqqqqqtctq qccqtqagcq agcaccqqct cagcaacaag 420 ctgctggctt ggagcgcgt cctcgagtgg caggagaagc gcagacccta ctctgactcc actgcaaagc tgaagcggac cetgccetgc caagcctacg tgaaccaagg cgagaacetg 540 gagaccgacc agtggccgca gaagctgatc atgcagctga tecetcagca getgetgacc 600 accetgagee coetgtteeg gaacteccag ttggcacagt tecaetteac caacagagae 660 tgcgactcgc tcaaggggct ctgccgcatc atgggcaacg gcttcgcggg ctgcatgctg 720 ttcccccaca tetccccctg tgaggtgcgc gtgctcatgc tectgtactc gtccaagaag aagatettea tgggeeteat eeeetaegae cagagegget tegteagtge cateeggeag 840 gtcatcacca cccgcaagca ggcagtggga cctggtggtg tcaactcagg cccagtccag 900 atogtoaaca acaagtttot ggcatggagt ggtgtcatgg agtgqcagqa gcccaqqcct 960 gageccaaca gteggtecaa gaggtggetg ceateccaeg tetaegtgaa ecagggggag 1020 atcctgagga ccgagcagtg gccaaggaag ctgtacatgc agetcatecc gcagcagctg 1080 ctgaccaccc tagtgccgct gttccggaac tcgcgcctgg tccagttcca cttcaccaag 1140 gacctggaga cactgaagag cctgtgccgg atcatggaca atggcttcgc cggctgcgtg 1200 cacttttcct acaaagcatc gtgtgagatc cgcgtgctta tgctcctgta ctcttcagag 1260 aagaaaatet teattggeet catececcat gaccagggea aetttgteaa eggeateegg 1320 egtgteattg ccaaccagca gcaggteetg cageggaacc tqgagcagga gcaacaqcaa 1380 cgagggatgg gggggtagtg gttaccccgg gctgggcccc tccaqqaqtc acagatqaqq 1440 ceccegcaga gactggtgac acgettetga geaggggeec etggggactt caactgeeca 1500 gcaacatgga ggatggtgtc ctgaggcctc caaggacqgt ccccacccct ctacqtttcc 1560 ccaataaagc cttttaaaaa cctgccaaaa aaaaaa 1596

ttttttttt ttgccgctgt caacagacag tttattctat atacaaacac aattttgtac

actgcaatta aatagaatgg aatgagcgct cctccgcatt cctccccgag tgactggttt

ggccgccggc ccactccatc cccgagtggg actggaccac ggccctggct gctgccactg

60

120

180

<210> 514 <211> 963 <212> DNA <213> Homo sapiens

<400> 514

```
atgttggege etgeacceca egtecetatg ecegaggege aagetetget etceegggga
                                                                    240
ccccaggcct ggcgcacacg cggggagggc ggggccatgg agaaggcact gcagggagca
                                                                    300
ccaggcagag ccgggctgag gccggccggc actagggcgc gaggccccac cccaagccgg
                                                                    360
cotetectec acaceteege ettgeteaga gacetgeace atgggacece actecatect 420
caggacggtt cactgcagac ctaccaagac ccctccagaa ccttccqcqq aaccccaccc 480
cototocttg otgaccaget caaacacete actagegggt acaagecteg ggegegacet 540
cacaccaggg ggaggaaagc cgccttccgg gcaaacccca cgaaaccctg aaagcccccg
                                                                    600
acacaggetg ggcagtecca gaggaaggag gtggetggee tececcacce ccacgggete
                                                                    660
gggaaggtca ggcccagcca gcaggggtca gaggcggctc agctgtgcgg ctcaggaccc
                                                                    720
caccteegag ggegeeteeg ttggggeeat ggaggeeggg etaggeeege etacegeage
                                                                    780
ccccagggga gttgtgtcag aagctgcgga gtcactcggg gggacactgt cctggggggc
                                                                    840
gtgggggagg cccccagcag ggcccagcgg gctggctgga cgccgctcca ggagggaggc
                                                                    900
gctcaggccg gacaggaagg aggcgtctgt gatgatggca gcggtctctg ccatccaacc
                                                                    960
cag
                                                                    963
     <210> 515
     <211> 777
     <212> DNA
     <213> Homo sapiens
     <220>
     <221> misc feature
     <222> (1) ... (777)
     <223> n = a.t.c or q
     <400> 515
ttttttttt ttaagggaga acagttttat tagcatcaca gggtccattt ttccctttcc
                                                                     60
atocaagoat coagagtotg gtgtcottta atoagttggc aggttcaacc tggaggccac
                                                                    120
tggagctgcc ggcccccaag tacatgaatg tgcagatgat acacagattg tgcacccage
                                                                    180
ttcccatcgt tgatcacaag tcggtatcca tctcccaggc cctcagcett tgctgtctqc
                                                                    240
ttggccacaa ggagtaggtg tcctagaagc tatagagaga gcggagggac ataggtggct
                                                                    300
getggtette ttetteagee tggetaatee gaggaatggg ettettagga atgaccagga
                                                                    360
agtgcacagg agcctgaggg gccacatcac ggaacacaag acactgctgg tcctcataga
                                                                    420
gaatgtcagc tgggaggctc ttgtccagga tccgggagaa gatggttggg gctgctcccc
                                                                    480
caggagttgc ctgctgggcc ttggccactt cattcccatc agtcacacct gcagctcctc
                                                                    540
ggacctgeee eeegegeace eeegtggeeg eeaeggetet gegegeegeg egeaacceag
                                                                    600
cagocagoac cacggotgoc gocatottoc otgagoogog ggaacotote accegggtea
                                                                    660
geactegget cegeggeeaa cegtqqqtqq qqacteeqqq eneqqeqaac qeqtqqqqn
                                                                    720
```

acgentnete acceanngth magenmetre tagatttece mmagagaa geageet

<210> 516 <211> 3206 <212> DNA <213> Homo sapiens

<400> 516

tttttttcc taggcaactg ttggcccaaa aaaaaaattt attttccttt caaataaaat 60 gtacaaccaa aatttagggt ttggagcagt agggaagaca ggagatacca gggagcccat 120 tttacagtag agatotgcat otgaccocto tatoccatac otttgcaaag gaagggaggg 180 gtctacaagc cagaactttc agaagagaag aaaatacatg ctgtgctggt gctgtttctg 240 gagcaggtca tcctttaggt atagaacacc acctccaccc gatgacatca gaaccactga 300 ctggtagage cettggaaat catacagtee acceatecce egecagacae atggacacae 360 cgaggetcag atggggaagg gtacataccc tagggcacac accaaatcaa aaaggtgaag 420 tcaggactag aacacctgag caactttagc aggggactgt ggccacaggc ctggatgtqc 480 acagtagatc atgaaataca ttagtcctag tgaatgaccc ccgtgcagag aaatggcttg 540 tggttgtcag ggagcagcca cttgcctcag gggctccctg accctcagtg aaaqqtqact 600 gtgtaaaggc caaaaactgg atggtggtca tgaacctcag gacgtttttt ttttttagca 660 ccaaatggtg gagctctctg ccagctcagc ttcttggggc ctctcaggta aaggtgatgt 720 ttgaggaccc cacgcccata tgaggggtgg agagaagcca gcagcactqq qqtqaqcctt ggcctacacc cttccttctt acccttcccc catcttcagt aaggccaaga gaggatgtgg 840 ggtggggaag gccagaatgg tatcgtgttt cttgtttctg ggcagtgggc tgcgtcctcc caagcaggac tgaagggttc agaatcgctt ttcctcaggc tgagaggtta tgagcagctc 960 cttgttcccg aagtcccacc aggccgtcat gtggaacgcc atgttggtta agacaacagt 1020 gtactccagg atggcaaaga tggtgtacac tccagcctca caatacatgt tgtgccgaaa 1080 gtagacagcc agcgccqaqa aqaaqqaqat qaaqttqatq atqaaqagcc gctgtttcca 1140 getgtaggae ttgegateet agggaatggg etgtetgate actetgeage ttgetgggta 1200 tgagagegtg ggeteceete teagecetaa eteetaaggg etgggeetta teteeettgg 1260 ctcccactag cggtcatgga agggagcaca ggcaggggca gcaagaatga cgactatgtg 1320 ttcacgtccc tgcctctggg ggagtgatgg gccgaggagc agtggtattc ctgccqcttc 1380 cacttcaggg ggatggagta tgaaagttac atggagtcac ccaccaaccc cacctccaaa 1440 tactgtgggg gaaaagaaac ccatgtacat gggtggggcg ctggaattat gacagaccag 1500 tectetgaca etgttectaa etcaetgeeg ectagatgeg acteeteatt etateeceat 1560 ttgcagcete catetettet attetecagt etcecacaet acceaaacae agtgetatag 1620 tectagatte tgaccaacca cecteagttt gtteccaage eccageecca accecageac 1680 coctetgeca gggttcccat tagaactcag ttcccacete accattacce gaatcetgag 1740 gacagatgtc cttgattttc ttctgggctg ccttggagcc cccgctaggg atagaccgta 1800 cotcotgact tactgtgtgc ttcttggtca accgccagag aatgcaggtg aggagcatgt 1860 gecegaggga tgaggcaatg aacacaatga aagcatttte gtggatgget ggagggaaag 1920 aggattggga gccacattgc agggagtgcc cacaccacga agtaggaagg tccgaatgtg 1980 gtaggggcag gcccgtcccc tcagggaaca cttccccact cctccctcat ccaggcaccc 2040 actgaagtcc tcggaggagg agacataagt gagcactagc aacgcgaggt tctccacgac 2100 attgaggeeg aagttgagge ggeagagegg gegatageag gaacaegggg aggtgeaget 2160 gaggtagtgg ttccagtagg cgaaggccac caagaagcga ggegeegagt gcaggccgat 2220 gcagaaacgc cacacgtagc gctggggcac ctccccqccg atggctgagc tcaccqaqqq 2280 caggtaattg ggcacctaga gagttgtgac etgtetggge atetgeetet gecageeegg 2340 cocatgtgga gaacettete tecatetgae aaaateacte ttgeetetge tecageceet 2400 eccettecaa gaagteetee tteagatgte eccatacete teecaaaaga ecteteette 2460 caggtoctag geccaaagtg etggattete attecceage tateetggga tttgtgeage 2520 ageatggtgg cacettetee ateteceeeg cagaetggaa cetgeetgtg tttggtcaat 2580 gtgtagatgg gttcagatgc tcttcaccca tagctcagag ctgtgcctcc actaagaccc 2640 tgggtgagtt ccaaggcctc agattcagtc cagaggacag ggatgagtca cagaccatct 2700 gagetteett agaacagtge tggatteact geteagetaa gatgtteete agtetgetee 2760 cagegecact cacteeteta ggeaggtgtg ccaaggtggt agaatggeac ecetgetetg 2820

2880

atcatgatta acaaagtggg tgggctgggc acqatgqctc acatctqtaa tcccaqcaaq

aatatggatt	tttaaaagtt	tccaaaactg	tggaaatggc	cagtccattg	cccacacttt	2940
ctgtgcactt	ctgcagacct	ccaacgaggg	ccagcgcagt	gccagagccc	agcaacccag	3000
caagggaatg	aatttgctct	aactatggag	ggacagtett	cggaagtgga	gttcttaagg	3060
accatcattc	ctttcttca	atgagatgcc	agactgctga	gaaggtgagc	aatgctgcag	3120
gcggctcata	gggcagccca	caggtaggcc	tggggcaaga	ctagccatgg	ggcttcacag	3180
cctccacaaa	aaaggagatg	gattee				3206

<210> 517 <211> 1731 <212> DNA <213> Homo sapiens

<400> 517 atattgatet eetggagatt egaaatggae caaqateeca tgaateatte caaqaaatgq 60 atottaatga tgactggaaa ctototaaag atgaggttaa agcatattta aagaaggagt 120 ttgaaaaaca tggtgcggtg gtgaatgaaa gtcatcatga tgctttggtg gaggatattt 180 ttgataaaga agatgaagac aaagatgggt ttatatctgc cagagaattt acatataaac 240 acgatgagtt atagagatac atctaccett ttaatatage acteatettt caagagaggg 300 cagtcatctt taaagaacat tttattttta tacaatgttc tttcttgctt tgttttttat 360 ttttatatat tttttctgac tcctatttaa agaacccctt aggtttctaa gtacccattt 420 ctttctgata agttattggg aagaaaaagc taattggtct ttgaatagaa gacttctgga 480 caatttttca ctttcacaga tatgaagett tgttttactt tetcacttat aaatttaaaa 540 tgttgcaact gggaatatac cacqacatga gaccagqtta taqcacaaat taqcacccta 600 tatttetget tecetetatt ttetecaagt tagaggteaa catttgaaaa geettttgea 660 atagoccaag gottgotatt ttoatgttat aatgaaatag tttatgtgta actggototg 720 agtetetget tgaggaccag aggaaaatgg ttgttggacc tgacttgtta atggctactg 780 ctttactaag qaqatqtqca atqctqaaqt taqaaacaaq qttaataqcc aqqcatqqtq 840 gctcatgcct qtaatcccaq cactttqqqa qqctqaqqcq qqcqqatcac ctgaqqttqq 900 qaqttoqaqa coaqootqac caacacqqaq aaaccctato totactaaaa atacaaaaot 960 agcoggott ggtgatgott gcctgtaatc ccagctaccc aggaaggctg aggcggcaga 1020 atcacttgaa cccggaggcg gaggttgcgg taaggcgaga tcacetccag cctggacact ctgtctcgaa aaaaagaaaa gaaacacggt taataacata taaatatgta tgcattgaga 1140 catgetacet aggacttaag etgatgaage ttggeteeta gtgattggtg geetattatg 1200 ataaatagac caaatcattt atgtgtgagt ttctttgtaa taaaatgtat caatatgtta 1260 tagatgaggt agaaagttat atttatattc aatatttact tettaagget ageggaatat 1320 cottoctggt totttaatgg gtagtotata gtatattata ctacaataac attgtatcat 1380 aagataaagt agtaaaccag totacatttt cocatttotg totcatcaaa aactgaagtt 1440 agctgggtgt ggtggctcat gcctgtaatc ccagcacttt gggggccaag gagggtggat 1500 cacttgagat caggagttca agaccagect ggccaacatg gtgaaacett gtetetacta 1560 aaaatacaaa aattagccag gcgtggtggt gcacacctgt agtcccagct actcgggagg 1620 ctgagacagg agatttgctt gaacceggga ggeggaggtt gcaqtqagcc aaqattgtqc 1680

cactgoactc cagootgggt gacagagoaa gactcoatct caaaaaaaaa a

<210> 518 <211> 1327 <212> DNA

<213> Homo sapiens

1731

<400>	518					
cccacgcgtc	cgcggacgcg	tggggaaaga	aggcgccgca	gctaagccca	ggtctctcct	60
ccgcaggttc	cagctccttt	cctggagcgt	gtgtgggggc	aacaaggacc	catgggttca	120
ggaattgatg	agetgtettg	atctcaaaga	atgtggacat	gcttactcgg	ggattgtggc	180
ccaccagaag	catttacttc	ctaccagece	cccaatttct	caggcctcag	agggggcatc	240
ttcagatatc	cacacccctg	cccagatgct	cctgtccacc	ttgcagtcca	ctcagcgccc	300
caccctccca	gtaggatcac	tgtcctcgga	caaagagctc	actcgtccca	atgaaaccac	360
	gcgggccaca					420
gccggaaaaa	aatgctggtc	ccacagccag	gacatcagcc	acagtgccgg	tcctgtgcct	480
cctggccatc	atcttcatcc	tcaccgcagc	cctttcctat	gtgctgtgca	agaggaggag	540
ggggcagtca	ccgcagtcct	ctccagatct	gccggttcat	tatatacctg	tggcacctga	600
ctctaatacc	tgagccaaga	atggaagctt	gtgaggagac	ggactctatg	ttgcccaggc	660
tgttatggaa	ctcctgagtc	aagtgatcct	cccaccttgg	cctctgaagg	tgcgaggatt	720
ataggcgtca	cctaccacat	ccagcctaca	cgtatttgtt	aatatctaac	ataggactaa	780
	ccctctctta					840
	gtgataataa					900
gctttgtttt	gagacggagt	ctcgctctgt	catccaggct	ggagtgcagt	ggcatgatct	960
	caacccccat					1020
aagctgggac	tacaggtgct	caccaccaca	cccggctaat	tttttgtatt	tttagtagag	1080
	gagtggactg					1140
gaagatgccc	cctctgaggc	ctgagaaatt	ggggggctgg	taggaagtaa	atgcttctgg	1200
	tececgagta					1260
tcctgaaccc	atgggtcctt	gttgcctcca	cacacgetee	aggaaaggag	ctggaacctg	1320
cggagga						1327

<210> 519

<211> 1002 <212> DNA

<213> Homo sapiens

<400> 519

ttttcaacct taaaaaattt taatggaatt ttcttctttt ttttttttct ttaaataaca atttgacaaa agggtgaaaa aatcctaaac aaggtattga ggccagtgtc caggctgcat 120 toagttcaca asactqtcct caqqacqttq catqqaactq qaaatqtqta taattacaqa 180 agaaaacagg gaggacttag tgcagagagg agacgagtgt ggacgggcaa cagcatcett 240 agticulticat attitatatat ggtatatgta tittictatat atatatitat atatititaca 300 tocaggtate coagteatet gtaccattte coagggagae atgggtgett ccaaggegag 360 acaggaaagg gttaggcagg gaaggggcag cgacggtgca ggctgggget tggctcacag 420 aagctgcagg agcttcagcg actgtaagag ggccccqggc tccqcagacq ccaqqtactq 480 gcagcaaagc cagtcctcca gctccacqcc ccqcctqcqa tccaccqcct tctccqcaaa 540 ettcatcate atcagggece gettcatgte gatecagttg tgcagegtge cgcacagege 600 ctcctccgag gtgcccggct gctgcaccag ctcgcgccga ggcccccaca gcaggcactg 660 cagcacgcgc ttggcctcgc cgatgcggat acgcttgatg gggtcggcct ccagtagcag 720 atgtgccage tgctgcagge cgggtgagta gagggacage gcgggcageg gcggcaggte 780 ctcctgccgg tagtctctct cccgcagctg ggcgcgcacc tcgaacgggt tgggttggtg 840 cagcageteg tagatgagga tgcctgtetg gaactcateg aacttgeggt actgggaage 900 agacacgata tegggggeca geogggeetg getettette tgetgeaggt ttggggtget 960 geceggette tgettggeet teaaaaagtt getgatgatg ag 1002

<210> 520 <211> 2966

<212> DNA

```
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(2966)
<223> n = a,t,c or q
```

<400> 520 gaaaagagga cttattgttg tcatggccca tgagatgatt ggaactcaaa ttgttactga 60 gaggggggtg gctctgctgg aaagtggaac ggaaaaagtg ctgctaattg atagccqgcc 120 atttgtggaa tacaatacat cccacatttt ggaagccatt aatatcaact gctccaagct 180 tatgaagcga aggttgcaac aggacaaagt gttaattaca gagctcatcc agcattcagc 240 gaaacataag gttgacattg attgcagtca gaaggttgta gtttacgatc aaagctccca 300 agatgttgcc tetetett cagactgttt teteactgta ettetgggta aactggagaa 360 gagetteaac tetetteacc tgettgeagg tgggtttget gagttetete gttgttteec 420 togectotgt gaaggaaaat coactotagt coctacetge atttetcage ettgettace 480 tgttgccaac attgggccaa cccgaattct tcccaatctt tatcttggct gccagcgaga 540 tqtcctcaac aaggagctqa tqcagcagaa tgggattqgt tatgtgttaa atgccagcaa 600 tacctgtcca aagcctgact ttatccccga gtctcatttc ctgcgtgtgc ctgtgaatga 660 cagcttttgt gagaaaattt tgccgtggtt ggacaaatca gtagatttca ttgagaaaqc 720 aaaagcotco aatggatgtg ttotagtgca ctgtttagct gggatctccc gctccgccac 780 categorate geotacatea tgaagaggat ggacatgtet tragarqaaq erracagart 840 tgtgaaagaa aaaagaccta ctatatctcc aaacttcaat tttctgggcc aactcctgga 900 ctatgagaag aagattaaga accagactgg agcatcaggg ccaaagagca aactcaagct 960 gctgcacctg gagaagccaa atgaacctgt ccctgctgtc tcagagggtg gacagaaaag 1020 cgagacgece etcagtecae cetgtgeega etetgetaee teagaggeag caggacaaag 1080 geoegtgeat cocgecageg tgeocagegt geocagegtg cageegtege tgttagagga 1140 cagcocgotg gtacaggogo toagtgggot gcacctgtcc gcagacaggo tggaagacag 1200 caataagete aagegtteet tetetetgga tatcaaatea gttteatatt cagecageat 1260 ggcagcatcc ttacatggct tetectcatc agaagatgct ttggaatact acaaaccttc 1320 cactactctg gatgggacca acaagctatg ccagttctcc cctgttcagg aactatcqga 1380 gcagactece gaaaccagte etgataagga ggaagecage atececaaga agetgcagae 1440 egecaggeet teagacagee agageaageg attgeatteg gteagaacea geageagtgg 1500 caccgcccag aggtcccttt tatctccact gcatcgaagt gggagcgtgg aggacaatta 1560 ccacaccage tteetttteg geettteeae cagecageag caceteaega agtetgetgg 1620 cctgggcctt aagggctggc actcggatat cttggccccc cagaceteta cccettecet 1680 gaccagcage tggtattttg ccacagagte etcacactte tactetgeet cagecateta 1740 cggaggcagt gccagttact ctgcctacag ctgcagccag ctgcccactt gcggagacca 1800 agtotattot gtgcgcaggc ggcagaagec aagtgacaga gctgactcgc ggcggagctg gcatgaagag agcccctttg aaaagcagtt taaacgcaga agctgccaaa tggaatttgg agagagcatc atgtcagaga acaggtcacg ggaagagctg gggaaagtgg gcagtcagtc 1.980 tagetttteg ggcageatgg aaateattga ggteteetga gaagaaagae acttqtqact 2040 totatagaca attititit ottgitoaca aaaaaattoo otgitaaatoi gaaatatata 2100 tatgtacata catatatatt tttggaaaat ggagctatgg tgtaaaagca acaggtggat 2160 caacccagtt gttactctct taacatctgc atttgagaga tcagctaata cttctctcaa caaaaatgga agggcagatg ctagaatccc ccctagacgg aggaaaacca ttttattcag 2280 tgaattacac atcctcttgt tcttaaaaaa gcaagtgtct ttggtgttgg aggacaaaat 2340 cocctaccat tttcacgttg tgctactaag agatctcaaa tattagtctt tgtccggacc 2400 cttccatagt acaccttagc gctgagactg agccagcttg ggggtcaggt aggtagaccc 2460 tgttagggac agagcctagt ggtaaatcca agagaaatga tcctatccaa agctgattca 2520 caaacccacg ctcacctgac agccgaggga cacgagcatc actctgctgg acggaccatt 2580 aggggccttg ccaaggtcta ccttagagca aacccagtac ctcagacagg aaagtcgggg 2640 ctttgaccac taccatatct ggtagcccat tttctaggca ttgtgaatag gtaggtaget 2700 agtcacactt ttcagaccaa ttcaaactgt ctatgcacaa aattcccgtg ggcctagatg 2760 gagataattt ttttttcttc tcagctttat gaagagaagg gaaactgtct aggattcagc 2820 tgaaccacca ggaacctggc aacatcacga tttaagctaa ggttgggagg ctaacqagtc tacctccctc tttgtaaatc aaagaattgt ttnaaatggg attgtcaatc ctttaaataa 2940 agatqaactt ggtttcaaaa aaaaaa 2966

<210> 521 <211> 1041

```
<212> DNA
     <213> Homo sapiens
     <400> 521
tggggcaagg atttcatgag catcetecte taaacgegtg tcaagacaaa agatgettea
                                                                   60
getttggaaa ettgttetee tgtgeggegt getcaetggg acetcagagt etettettga
                                                                  120
caatcttggc aatgacctaa gcaatgtcgt ggataagctg gaacctgttc ttcacqaggg
                                                                  180
acttgagaca gttgacaata ctcttaaagg catccttgag aaactgaagg tcgacctagg
                                                                  240
agtgetteag aaateeagtg ettggeaact ggeeaagcag aaggeegagg aagetgagaa
                                                                  300
attgetgaac aatgtcattt ctaagetget tecaactaac aeggacattt ttgggttgaa
                                                                  360
aatcagcaac teceteatee tggatgteaa agetgaaceg atcgatgatg geaaaggeet
                                                                  420
taacctgagc ttccctgtca ccgcgaatgt cactgaggcc gggcccatca ttgaccagat
                                                                  480
tatcaacact gagageetee ttggacetee tgacegeagt cacaattgaa actgateece
                                                                  540
agacacacca tectgttgee ggaetgggag aatgegeeag agacecaace ageateteac
                                                                  600
tttgettget ggacaaacac agecaaatca teaacaagtt egtgaatage gtgatcaaca
                                                                  660
cgctgaaaag cactgtatcc tecetgetge agaaggaqat atgtccactg atccqcatct
                                                                  720
tcatccactc cctggatgtg aatgtcattc agcaggtcqt cqataatcct cagcacaaaa
                                                                  780
cccagctgca aaccctcatc tgaagaggac gaatgaggag gaccactgtg gtgcatgctg
                                                                  840
attggttccc agtggcttgc cccacccct tatagcatct ccctccagga agctgctgcc
                                                                 900
accacctaac cagegtgaaa geetgaqtee caccaqaaqq acetteccac atacceette
                                                                 960
tecteacagt cagaacagca gcetetacac atgttgteet geecetggca ataaaggeec 1020
atttctgcac caaaaaaaaa a
                                                                 1041
     <210> 522
     <211> 1295
     <212> DNA
     <213> Homo sapiens
     <400> 522
60
aacatttaca aattgtacaa agattggtag cttttatatt tttttaaaaa tgctatacta
                                                                  120
agagaaaaaa caaaagacca caacaatatt ccaaattata ggttgagaga atgtgactat
                                                                  180
gaagaaagta ttctaaccaa ctaaaaaaaa tattgaaacc acttttgatt gaagcaaaat
                                                                  240
gaataatgct agatttaaaa acagtgtgaa atcacacttt ggtctgtaaa catatttagc
                                                                  300
tttgcttttc attcagatgt atacataaac ttatttaaaa tgtcatttaa gtgaaccatt
                                                                  360
ccaaggcata ataaaaaaag aggtagcaaa tqaaaattaa agcatttatt ttggtagttc
                                                                  420
ttcaataatg atgcgagaaa ctgaattcca tccagtagaa gcatctcctt ttgggtaatc
                                                                  480
tgaacaagta ccaacccaga tagcaacatc cactaatcca gcaccaattc cttcacaaag
teetteeaca gaagaagtgc gatgaatatt aattgttgaa tteattteag ggetteettg
gtccaaataa attatagctt caatgggaag aggtcctgaa cattcagctc cattgaatgt
gaaataccaa cgctgacagc atgcatttet gcattttagc cgaagtgagc cactgaacaa
                                                                  720
aactettaga geactatttg aacgeatett tgtaaatgta cacteegeaa tttteccaag
                                                                  780
atctatgcca taattcaatg aactccatga acactgcttg tagttgggtg tccaggactc
                                                                  840
ctcasagett tecetcagae attececett tteteetttg aatecateee gaeetgggat
```

cccaggtgta cccggaatgc cattggcccc agggetcccg tctcgaccag gcactcctgc

tggcccttgt aagcacattc cattatacag gtccaccacc tccctctgcc ggagctgegc

ettttgette ecettgggga tetcagagge getegaegge gegggeaget geageageag

900

960

1020

gagcagcagg	aggccgcgga	geegetgegg	ggaggcggcg	gggccctggg	gtcgcatggc	1140
teceggetge	cgggcagcgc	ggagctggag	gcggaggaga	ccgaggagag	gaacgtggtc	1200
agcgtctggc	teegeegege	tecgaggeeg	ccgcaggctg	catcaatgcg	cctttcaccc	1260
gagcgcctct	ctccctccct	taattcctcc	cgccc			1295

<210> 523 <211> 2014 <212> DNA <213> Homo sapiens

<400> 523 ttttttttt ttactgtttt atccaaattt attctcaggg aaaaagaaag tagtggctct 60 acgcaacttt ttcattcacc aaccaccttt ccatgcatca gaacctatgc tgtgattgtt 120 agctgaactt caatagtttc cacctactta agagagatgc ctcaaacaaa ttaactttat 180 tttcagacaa caggtccaag aagacttcac agctcaatca tgacgaacat gtggctgttt 240 cetcacagec aggaacecte ggtattagaa gaaaaeteea aceeeccaca ecatcateta 300 geetetttte teaetgtgaa gaactgatga gacagaatte etgagaaggg aacatttagg 360 taatotggga tagaagggca tggaaggact ggacaaaact aaggcetece catggaagga 420 agggaaaaga atattacaaa acagactaac cagaaaaacc aagaccccat caagtatcct 480 tcagggataa aacaagaggo cactoctaga tgcctcctga ttaaaaggtt gtcccatgcc 540 ctacagagge ggaggataga tectaagaaa cagaaatgta taaccageee caatgettee 600 catacttety cattaggtca gtgtgaacat ggetttgete ecaatggtca gacetqacat 660 gggtccttct gaagatggtg ggtcaggtat atcccagcca ccctcaccag agaatacatc 720 tatgacaaac ccaaattcct aatcetgaag tactttgage cactetacat tgtggccact 780 caataataga ataaatttgt gaaaaagctg catgttttaa tttaggaaat gagtagaagt teacaageaa eecagaatag gtgecageag tttgetecag tgggecacae cacageagea 900 geteaggete tgeagaatea etgtgteeag tgetteetga qatgttettt cagetgagga 960 atggaaggca gcagctgctg gcactcatga caacqaaqqq qcaqcttcaa qaqctcaggc 1020 atcccatctc ggacagttac tctaccaqcc tcttqtacca tctcqatcac agcttqtqat 1080 totaggaagt attotgtatt gaaagaatto caatgttttt totttttaag gcaaggagaa tcaaaatcct ggctgatcac atgaagatgt acatggctca tactcggaat ggcgtggtag cccaategga ageggagttt getggaeega geaaaateta caateacett tteccccaca 1260 gtgtgcatat gcttaaggag ttcaaggtgt tcccctggcc acagccttca gactggaaat 1320 ggaggtccac ggtaagacca gccaatggta acgggccttt gggtatttat cetttatcac 1380 caccacctge teatettigt asacctgeat tttggggtee tgeatagass tettesagee 1440 ttgactccag tggcccaggg attccttttt gataggtgca tcttttccct tctttagggg 1500 cacagageat tggccagagt tgctcccagg ttccagccct gtcccagcct cagcttcctg agoagoatco otttotatag aatoactgtt gootgatete tttotottee tgtgtgttte 1620 caggocaggg ttotttgcct cttcctcaaa ctctacaata tatggataaa gttcattcac 1680 catgtggaga acctggccag gctgcagctt cacctcttgg tccttcccaa ttacgactga 1740 gtcaatgctg gtgggattga ctcctacctg ctttaccttg acatatccct tgttacactc 1800 tgettteaac tgtacttget gtegagaaca tttettatea gtgatettgg tetetgggee 1860 acgoccaatc acaactgett ccaaatgtqq aagtetgatt egetgqtgee gqetqteetq 1920 totcaccaac cagcacacco gcatcatcac totccagaag toggagaogg acaaattcac 1980 cetegtgeca ageatggegg aatgeateta acag

<210> 524 <211> 2151 <212> DNA

<213> Homo sapiens

<220>

2014

<221> misc_feature <222> (1)...(2151) <223> n = a,t,c or g

<400> 524

gcccgcgqta qtaaacctgq atcctttaaa acqqccccc ctttttttt tttttaatqq 60 casatagatt taatgcagag tgtcaacttc aattgattga tagtggctgc ctagagtgct 1.20 gtgttgagta ggtttctgag gatgcaccct ggcttgaaga gaaagactgg caggattaac 180 aatatetaaa ateteacttg taggagaaac cacaggeacc agagetgeca etggtgetgg 240 caccagetee accaaggeea gegaagagee caaatgtgag agtggeggte aggetggeac 300 caqcactqaa gccaccactg gtgctggcac tggcactggc actgttattg gtactggtac 360 tggcaccagt gctggcactg ccactctctt gggctttggc tttagcttct gctcccgcct 420 ggatccgggc tttggcccag ggtccgatat cagcttcgtc ccagttgcag ggcccggcag 480 cattetecga geogagecca atgeccatte gagetttaat eteggeceta ageettgget 540 tocaaggtga geeteagett geageettea aaateegett ceattegece ettnetttee 600 cggggggga ctgagctgcc cattcccttt ggatccttcc ttttgtaccc ttgcaggcaa 660 acttgaagga ctttcatctt tgctggtcct catagtaaga gcgcaggccc ccagaagaac 720 tcatattcaa ggggaattgc tatgggggac tctggcatag tcccaggtac ttctgcttca 780 caaacctcat cagtgatgag ctteetteac gteececaag agttgaatga tgtateecea 840 ggcgcagccc caaacttggc gcagcacctc ccagatgaca gcctcacttg gaccgatttc 900 catteattga agatgatget aagaagcace atgagcagae ceagettggg tgagteetta 960 gtcgttccca gtatgcctgc atcagtgggc tctaaggtgc tgagaagaat gtacaagtgg 1020 toattottat caatttoott caattqaatc ccaaatacct tottocaaqq aataqcotqc 1080 togttcaaat gatttcgggg tacacatcag tgtattcttt gatgatgtcc ttcagcatgt 1140 tocgagoot toatgggaat cttogtotog totttagcca aaaggtactt caccaaatto 1200 atttgcctc ccttgcaaaa gggccacatc cccaagntgg tggtgcttca ggctcttggg 1260 atgaactgga acttggcaac tctaacggcg aagccccttt gcctacgggc tttaaggtga 1320 totocaaggg gagagcaaag gototocggg occaaagcaa gocaaccgag toottgatgo 1380 cotgogggc caaaaggcta tgggacccct tgaagccctq cggqccattq aggccattag 1440 agectttgag accettegge cacetgtggt tecagaagee tgactetgat cactgetgee 1500 atcetettee ceatecagat getteacett tegggettte ttggetttga cettgggeeg 1560 agtatoctga ttotcotgag actgggcago tgcactotca ggctcaggtt catotgctgg 1620 ggcctgagag ggtgcagcct cagtctcctg agcctttgta ttgaccttcg tatcagccac 1680 atggctgacc tttttggtct cagtggcagg cattgtcaca gcctgcgggt cagcattctg 1740 tttcttggtg tcagctgcta gactcttgtt ttcagctgcc agaacctggg tatcagtcag 1800 ctgagtagta gatgaggeet gggtggeagg tgcctcccga gcctctgggg tctttgagae 1860 ctctgtggcc tttgagaccc cagaggcttt tgagaccttc acatcctctg agacctccag 1920 tgcctttgag gccttcggtg tctctgggac ctccacattc tggqtcactg tcaacagagt 1980 ctgcatcatc gagctactgt ccttttctga agcttcagcc tqqaaqcqaq ttagacctqc 2040 accactotog ottgtgtcag acatgtotca atttggcctg gcaagagctg agcctcgtcc 2100

<210> 525

<211> 1869

<212> DNA

<213> Homo sapiens

<400> 525

gogogyacte etytetgrae egysagraea atgtogeta egytegtag eatgsgytge 5 yttggyttet teltystyse gygygotogy caetcatgy ftgytsays aaaacette 120 etytetgree gyccagrae tytgytgyet egaggangae acytgytet teatytgtea 1 kategtegty gytttaaaa tttoatytgy tacaaagaag acagaagoe egyttecae 240

tectacaatt eccqagtgeg tecacteact ceaageeect ecqaageteg q

2151

ttccacggca	gaatattcca	ggagagette	atcatgggcc	ctgtgacccc	agcacatgca	300
gggacctaca	gatgtcgggg	ttcacgccca	cactccctca	ctgggtggtc	ggcacccagc	360
aaccccctgg	tgatcatggt	cacaggaaac	cacagaaaac	cttccctcct	ggcccaccca	420
gggcccctgc	tgaaatcagg	agagacagtc	atcctgcaat	gttggtcaga	tatcatgttt	480
gagcacttct	ttctgcacaa	agaggggatc	tctaaggacc	cctcacgcct	cgttggacag	540
atccatgatg	gggtctccaa	ggccaatttc	tccatcggtc	ccatgatgct	tgcccttgca	600
gggacctaca	gatgctacgg	ttctgttact	cacaccccct	atcagttgtc	agctcccagt	660
gatcccctgg	acatcgtggt	cacaggtcca	tatgagaaac	cttctctctc	agcccagccg	720
ggccccaagg	ttcaggcagg	agagagcgtg	accttgtcct	gtagctcccg	gageteetat	780
gacatgtacc	atctatccag	ggaggggga	gcccatgaac	gtaggeteee	tgcagtgcgc	840
	gaacattcca					900
tacagatgct	teggetettt	ccgtcactct	ccctacgagt	ggtcagaccc	gagtgaccca	960
ctgcttgttt	ctgtcacagg	aaacccttca	agtagttggc	cttcacccac	agaaccaagc	1020
tccaaatctg	gtaacctcag	acacctgcac	attctgattg	ggacctcagt	ggtcaaaatt	1080
cctttcacca	tectectett	ctttctcctt	catogctggt	gctccaacaa	aaaaaaatgc	1140
tgctgtaatg	gaccaagagc	ctgcagggaa	cagaagtgaa	cagcgaggat	tctgatgaac	1200
aagaccatca	ggaggtgtca	tacccataat	tggaacactg	tgttttcaca	cagagaaaaa	1260
	ttctcagagg					1320
	tgagcccaga					1380
ttgaggggat	cttctaggga	gacaacagcc	ctgtctcaaa	accgagttgc	cagctcccat	1440
	ctggaatctg					1500
gccacaaatc	tggtgcctct	ctcttgctta	caaatgtcta	ggtccccact	gcctgctgga	1560
	actcctttgc					1620
	aactggctta					1680
cacaattcca	aacatacaag	aggctccctc	ttgacgtggc	acttacccac	gtgctgttcc	1740
	atgctgtttc					1800
aaacttataa	aattttttgt	gatttcaatg	tagctgtctc	ctcttcaaat	aaacatgtct	1860
gccctccaa						1869

<210> 526 <211> 6655

<212> DNA

<213> Homo sapiens

<400> 526 ataaccattt attagtcgaa agtgttttta agcacagtca gggtgtaaac agtgcagcat 60 tcotgctccc ctccgtggga gcagcgtctc cttttcaatt catgtgacta cagaaggcac 120 ttggtgaact gtgcgtgtct gaggtgtgga aaccaggaga cgctgctccc acagtcaggg 180 tgtaaacagt gcagcattcc tgctcccctc cgtgggagca gcgtctcctt ttcaattcat 240 gtgactacag aaggcacttg gtgaactgtg cgtgtctgag gtgtggaaac caggagaggg 300 ggaaagaatt ctcaaaggcc tgacgtgaga agttggaaag gtttgcaggt tagggaatga 360 attgggagtg ggggccggcg gcacccattt cggtgacttt ctccccattt catgtaaaca 420 gaattgccag ggaccggtta ccgtggatat gtttttctaa aaactcagtg tctgcacaat ccattgatag aactggagga tgtgtctgtg tttcctgttg ggtttttctc atctcttaca 540 tcatacaaac ttcaattttt accttgaata caggggtagt aggggtggtg gtggtggtgg 600 tggttgagac agggtctctg ttgcccaqqc tqqaqtqcaa tqatqcaatt ataqctcatt 660 gcagcctcga agtcctgggc tggagcgttc ttcctggctc agcctcccta gtagctggga 720 ccacaggtgt gtaccaccac gcccagctta tttttaaatt cttgtataga tgaggtttta 780 ctacgttgcc caggctggag ggtggtggtt tttatattcc ttgtgtgagg ggtgtctgtg 840 atatttggaa tttgagaatg gatttagaca atgctaagta cagtctgctg ggttttgctt 900 tgttctgggt tgttgttggg ttttttttgt ttqtttqttt tqqtttttqq ttttcttqcc 960 gtggtgcaaa actgtagaaa gttgcttatt cactggcctt ggttccattg aagtctgcgt 1020 ctcgagtgtc cgtttcctcc tcagaaccat ctgcattttc aataactcta cgtcctccag 1080 accttctaga aggaacgaaa gaggtctcgt ttcctcgcct gagcttgctc ttgagtgcgt 1140 teacetegeg geccatggee tegitgetet eegiggeete atecagetee egetgeaget 1200 teetgeggtt ggegttgatg egetgggaet ceteetetge eteeteeage tgeetettga 1260

getgettgae	cctggcattg	cctttctctg	cctgctcctt	gtactgctcg	gccatcttgc	1320
	cacctgcagc					1380
	etgtttetet					1440
	cgccgcgatg					1500
ggagcttgct	ccggagctcc	ttgttctgcc	gctcgagctg	ctgccgggca	ctctcattct	1560
tetgggccgt	gctgcgctct	gtggccagct	cqttqctqaq	ctqctcqqcc	tactatataa	1620
	ceggtegete					1680
	gatccgggcc					1740
	ggcccagctc					1800
gaccetette	agcggcggcg	aggtccttct	tgtagctgca	tgaggtcgtg	cttccaaqct	1860
	ttctcattct					1920
						1980
	agetetettt					
gatggctttc	cctccctcc	ctttgatggc	agagteggee	taaagatcca	aggttettae	2040
agggtcccat	cccagcttta	tttttgctgc	agctgccagg	gcacgttgct	ttcqctcqtc	2100
	gtctcatact					2160
theheatees	ttegggettg	cacatacaca	bbassasas	cgccccccg	acadecee	2220
	agccgcagtt					2280
gctcttccaa	ctggcgtctt	catctcctcc	aatctggggt	ctcccagggc	ccqqcttqqa	2340
	atcatgggac					2400
	ctggctttga					2460
	agggcccgag					2520
cctcaactct	gtccctctca	tccgcgtatt	tggaagagat	gtttttctcc	teggetaaca	2580
actgatcaaa	tttcctctgc	ttcttttcca	ggttggacac	cagttgccgc	taattatcca	2640
	caggtcgtcc					2700
	cgccttctcc					2760
tettetteee	ctcttccaga	gcttccacgg	tgctggcaaa	gtcctgcagc	ttcttcttcg	2820
agtcgqagag	ctggatgttg	agagtggaga	tgtggcgctc	caggttctgc	ttggcctcca	2880
	cagctggtct					2940
	ttgagcttct					3000
	gagggacgcc					3060
taagcatccc	ctgtgacgct	ctcaacttca	ttctgcaggc	ttgtggactt	tgtcattgag	3120
ctccqcccqq	gecegetece	catcgctgca	cttqqactqc	agetectgea	cctacaccta	3180
	attctatgtt					3240
	ctgtgttctc					3300
	gactgctcaa					3360
cctcatctcc	tggacctgag	cctcatggga	ccgcgtctct	tcattcaggg	cccctcttca	3420
gcaccgtcac	ctcctgctcc	ctcttggccc	tgagctcctg	ctgagtggct	gtgctgtcca	3480
atatatette	cagctctgtc	tttagggcct	ccaqctcctc	accasaatct	cacttctact	3540
	gttcctggcg					3600
						3660
	ctcccggatc					
	ggccgcctgc					3720
cgatctgcgc	ctggaggtca	gcgatctgct	cgtggaagtc	gctggcatca	ccctccagct	3780
tccatttcaa	cttctccagc	tectateace	tettetette	cttctttagc	cocacttcca	3840
	catagattca					3900
						3960
	aagatttgtc					
	attgttctga					4020
tggcctcagc	cgtgaccttc	tcaagttgca	gcttctgcct	ggcagcttcc	tcctcctcca	4080
	aaggtccagc					4140
	ttcctcctcc					4200
	ggccgccagc					4260
ctgcctgcag	ctgttcctgt	agcaggttct	tctcctcggt	cagctgcgag	tgcttctgtt	4320
	aagctcattc					4380
	ctgcatctcc					4440
	gcaccactgc					4500
tcaccttcat	ggcggtcagc	tgctgctgcc	tcttggcaaa	ageetttetg	gccaagtagc	4560
cacgacacat	cgcctggaag	gccatgatga	catcqqtqat	cttcaaatct	cgctcctcct	4620
	caggacgcca					4680
	ttccagggct					4740
			cataccatta	gcggaactcc	tggaagacga	4800
reeggriggg	gaagccctgc				ttgcaccgca	4860
	gaagccctgc	cggcagatgc	gaatgccttc	cagcacccca		4860 4920
gctgctccag	gaageeetge caecaggaae	cggcagatgc gcatccagct	gaatgeette tgeeggaeet	cagcacccca cttctcgtgg	ttggggatga	4920
getgetecag tgeagegeae	gaageeetge caccaggaac gaagttggge	cggcagatgc gcatccagct gtggtgttgc	gaatgeette tgeeggaeet gtagegtggt	cagcacccca cttctcgtgg catcagcttg	ttggggatga cccagctgct	4920 4980
gctgctccag tgcagcgcac ccttgtacag	gaageeetge caecaggaae	cggcagatgc gcatccagct gtggtgttgc gtgcggaaca	gaatgeette tgeeggaeet gtagegtggt tgeeettett	cagcacccca cttctcgtgg catcagcttg ggtcttggag	ttggggatga cccagctgct gcgctgggca	4920

```
acaggtcqqc cacaaacttq tcqqaqqaqq cattqaqcaq qqaaqtcacq ttqtcattca
gegggtecat attettggte agecaggeae tegeattata gtetacette ceageataat
ggatgatgga gaactcagte ttgteettga getgettggg ettetggaac ttggggtgge
                                                                   5280
tgccctgctc cgtgcacagc ttctccacga aagacttgtc cgtggctttg gggaaccagc
                                                                   5340
attoctcgtc cagcagggcc agcacacctg gagggttgtt cggtcgctcg atgagctcga
                                                                   5400
tgcagggetg taggtccagc ccaaagtcga tgaagttcca ctcgatgccc tcgcgctggt
                                                                   5460
actoctcetg etecaaggat gaacatggtg tggttgaaga getgetgeag ettetegttg
                                                                   5520
gtgtagttga tgcacagctg ctcgaaggag ttcacctcaa agatctcaaa tccaqctata
                                                                   5580
tocaqqatec coaqqaagga aqccccttqc cgatqqqtct tqtccaqqqc tttqttcacq
                                                                   5640
cqqqtqaqta tecaqeqqaa aagqeqetea tatqttqeet tqqeeaaaqe etetacaqea
                                                                   5700
aggtcagect gttettttgt etgagettte tgtaccacat etegeccaac ettgatacga
                                                                   5760
ggagtgagga tggatctggt gaaatctgtc acattaattc ccatgaggtg gcaaactttc
                                                                   5820
tgaggaggtg tgttatctgg catggaggg tggtetgtgt ttctttcctt cttgaagacg
                                                                   5880
atatttecaa getgeaggae egatgatace acetteaata tggatagetg etecteeteg
                                                                   5940
ctqaaaccca tgattgccat ggcctccacg gtttcctgga acatctcatc atcctqqqct
                                                                   6000
gctgggatgg qcacaaagcc attggagagg aaggtgtagt tgttgaagcc ctccaaaagc
                                                                   6060
aagtcacttc tcatcttctc cttggctcca gcaatcatgt agtaaaagat gtggaatgtc
                                                                   6120
ctctcgtctc tggcttggcg aattgcccgt gatttttcta gcagataggt ctcaatgttg
                                                                   6180
gctcccacga tgtaacccgt gacgtcgaag ttgatgcgga tgaatttgcc gaatcgtgag
                                                                   6240
gagttgtegt tetteactgt tttggegttg cegaaageet ceagaategg gtttgettgt
                                                                   6300
agaagetget tttecagete tecegtgata ettgtgtett tettgeeett gtgggaggag
                                                                   6360
gccaccacgg ccaggtactg aatgacette ttqgtgtttt cqgttttecc ggctccaqac
                                                                   6420
tegeetgtge atagaatgga etggteetee egatettgaa geatgeteeg gtaggeegtg
                                                                   6480
totqcqatqq cgtaqatqtq aqqcgqcatc toqtqcctct tottqccctt qtacatqtcq
                                                                   6540
acgatottot ocgagtagat gggcaggtgt ttataggggt tgaccaccac gcagaagagg
                                                                   6600
ccagagtacg tatatattag ccctgagaag taccgctccc tcaggttgtg tagca
                                                                   6655
```

```
<210> 527

<211> 1081

<212> DNA

<213> Homo sapiens

<220>

<221> misc_feature

<222> (1)...(1081)

<223> n = a,t,c or g
```

<400> 527 aaactacatt ttgcaaagtc attgaactct gagctcagtt gcagtactcg ggaagccatg 60 caggatgaag atggatacat caccttaaat attaaaactc ggaaaccagc totcgtotcc 120 gttggccctg catcctcctc ctggtggcgt gtgatggctt tgattctgct gatcctgtgc 180 gtggggatgg ttgtcgggct ggtggctctg gggatttggt ctgtcatgca gcgcaattac 240 ctacaagatg agaatgaaaa tegcacagga actetgcaac aattagcaaa gegettetgt 300 caatatgtgg taaaacaatc agaactaaag ggcactttca aaggtcataa atgcagccc 360 tgtgacacaa actggagata ttatggagat agctgctatg ggttcttcag gcacaactta 420 acatgggaag agagtaagca gtactgcact gacatgaatg ctactctcct gaagattgac 480 aaceggaaca ttgtggagta catcaaagcc agggactcat ttaattcgtt gggtcggatt 540 atctcgccag aagtcgaatg aggtctggaa gtgggaggat ggctcggtta tctcagaaaa 600 tatgtttgag tttttggaag atggaaaagg aaatatgaat tgtgcttatt ttcataatgg 660 gaaaatgcac cctaccttct gtgagaacaa acattattta aatgtgtgaa gaggaaggct 720 ggccatgacc caaggtggac ccaactaccc ttaatgccaa agaggtggac aggataacac 780 agataagggc tttattgtac aataaaagat atgtatgaat gcatcagtag cctgaaaatt 840 gccttatttc tccctttctt ctcactqqaq ttatttttaa tattatcttt cctatcaqaa 900 ttacctagte cettetttga atatacagaa gecateaegt gagtttatea tttgetteee 960 aattqttcta ttttccttta attttctttc ttcttqtcct tcatttctaa ttacctqaac atggtatgat ttactgcatc ttcagatata cacatataac atcagaantn aggccaatat

a 1081

<210> 528 <211> 1098 <212> DNA <213> Homo sapiens

<400> 528 tttaactccc cctcttctta agagaatttt aatgaagctg agataagagg catatttact 60 tgcagtttqc cccattqtta ccctqqattc ctccqaqcqc acaaqcttac cqcaaqqctq 120 actgtggatg tacttgggaa tctctcgtcg gctgtcctca atgctcacgt tcttagcata 180 cetteaccet agagaaagge ceceacateg ggegecagat gaaggggtgg cetgeceete 240 cacacctgtq qqtatttcta qtcaqqtqqq atqaqaqact qaqaaaaqaa aqaaqacaca 300 gagacaaagt atagagaaac aacagtgggc ccaggggacc ggcactcagc acaccaagga 360 cotgcacogg cacoggcotc tgagttcoct cagtttttat tgactattat tttcattatt 420 tcagcaaaaa ggaatgtagt aggacagcag ggtgataata aggagaaggt caacaaaaaa 480 aacatgtgag caaaagaatc tatatcataa ttaagttcaa gggaaggtac tatgcctqga 540 ogtgcacgta ggccagattt atgtttetet ccacccaaac atctcagtgg agtaaaqaat 600 aacaaggcag cactactgcc aacatgtctc gcctcccgcc acagggcagc ttttctccca 660 totcagagtt gaacaaatgt acqatcqqqt tttacaccqa gacattcaqt toccaqqqqc 720 aagcaggaga cagtqqcctt cctccatctc aactqcaaqa qqctttcctc ttttactaat 780 ccacctcage acaqaccett tatqqqtqte aqqetqqqqq accatcaqqt etttetcate 840 ccacgaggcc atatttcaga caatcacatg gggagaaacc ttggacaata cgccgctttc 900 aagggcaggg ctccctgcgg ctttccacgg tgcattgtgc ccctggttta ttgagactag 960 agaatggtga tgacttttac caagtatact gcttgcaaat attttgttaa caaggcacgt 1020 cotgoacago cotacatoco ttaaacottg atttoataca cacatgtttt tgtgagetee 1080 aggttgggtc aaagtggt 1098

<210> 529 <211> 1998 <212> DNA

<213> Homo sapiens

<400> 529 ttttttttt ttgtgggtaa aaccattttt attaactgac caaagcacat cattttgttt totgatttqa qqtaaaatca taaaacacaq ttcacaaqaa aatacaatqa ctatttaacc 120 acaattacaa gtttgaaatc tcactaggtg ttcatatact tttacaaatt catacaactg 180 tatagtotac ttaagottag tgttaaccaa aaqaqcaata tcaaagacct aqacacttqa 240 ctactacttt tgcagtgggt atagttttat aacaacagaa taactgttac cttatgaata tactttactt taaaaaccac ttgactageg actgtactgt ttcctcgtgg ttcaggggtg 360 tgcatgaagg ctcttaggag agcaaacacc tgttcctatt ctgtatgtcc ctccctcatt 420 tcaaatgaga gtaaccaatt gagtaaaata accaaataac cattgeecca ccatgaacat 480 ggggcttggg aagacagtcc tacaatcttc atcatatatt taggttttta ggccagccag ctcttttttt ccaaagcttt cttttgaatg ttcagatcct attaatccta actatagact 600 actgtgtttg tgagggtgtc tgagtgtcta tgtgagggca aggacaacag tgcagtccag 660 aaacacagaa aatatgcttt tttgcagctq aqctctqttt tqaqatttca ttttqttact 720 ggacageget taatecatae caaagtettt ggaacaetge agatttgett tagaggtaga 780 taaaacagaa atcatgcagt taagtcaatt qaqaaaaaaa aagggatttg ttgtctttac 840

agaacatcat	gactaaaagt	tgatcctttg	ctcttggtgc	acatttaaga	tttttacctg	900
ttttgggaaa	tacccaagtc	ttecttgtct	ctcaggaaaa	acacatttaa	attcatcctg	960
tactaactac	agatagaaga	acagcagtat	taccatgtgt	attgcagcac	tgcagttcac	1020
tttctggatt	tgtgacacac	aaacacatca	tgtgacgtcg	catgcacgcg	tkkgettqgg	1080
kccctcgagg	gatcctctag	ageggeegee	ctttttttt	tctttttcat	tctaagaaqt	1140
taattttatt	agtgtcacta	gtgatgttaa	ttaaaaaact	tatagcaagt	gctcaaaact	1200
ttctaaatat	tgtaatcact	atgttttaaa	gacagagtgg	actgttacaa	atgattttgc	1260
aaaatacaaa	aatagatata	cttccactga	aatgctttaa	tcatttttcc	gggcactctc	1320
atcttttggt	tetteeteat	ctgagtacac	agtgggctcc	teccectect	tcagcagttt	1380
geccaegtga	tgatacttga	aagtgaactg	agactcccag	tcactcagag	teteeetget	1440
gggcagcaag	tgaggtcaga	aagggtcatc	gttactcatc	cttcaggggc	tteettatee	1500
agggcaaaat	tgtaggcaag	gcccctggga	tgcattttct	tecageaaag	accccatacg	1560
ggcccctcgg	gccccgtaag	aaatttgcgg	gcctttgggt	cacatcgaac	accttgccgt	1620
tgatggccca	tgagtatggc	gcggggtcct	ggacgccgtc	gaagegeege	agcttcggcg	1680
gggggtgaag	tegegeeget	tgaggcgggg	cagagggggc	ggctcgtcgt	cgtcgctgtc	1740
geegettgge	cgccggctgg	tccccgcgca	cgatcttgta	gagcaggaag	atgcatgagg	1800
ccaagcagca	gcaggttgag	cggcgacgtg	aaaatctcat	gcagcagccc	geegetetee	1860
agatcgcttg	ggtcggcgcc	agtcgccacc	acatectegg	cagccatgat	ctctggagta	1920
aaggttgggc	cgcgctaggc	agggatccgg	aactcgccac	tttctcctcc	ctctgagcga	1980
gcgagtggcg	cgcggggt					1998

<210> 530

<211> 766 <212> DNA

<213> Homo sapiens

<400>	530					
tttttttt	ttaataaaac	cataacaaat	ctttcattaa	agatctactg	agaccttggc	60
tgaaatcatc	tattattgtt	gctagttagc	ctctcttcta	tagttgggta	atgtgtgtct	120
tgccactgtg	tttgccagct	ctcccaagtg	aaaagaacac	tttttataaa	aaaattaatt	180
gctccaagtt	ttcaggccca	ggggaggctc	teceattete	ctccttcaat	aagtcccgtc	240
		ggataaattc				300
		tcatcccact				360
		ggacgccatg				420
		tttctttggg				480
		cageteteca				540
		cgggctggcc				600
		ctgctgcttg				660
		aaacttggcc			acccgtgggc	720
ttgctgctcc	cagaaccgcg	ttcagttccc	tttcctccct	cgtgcc		766

<210> 531 <211> 1891

<212> DNA

<213> Homo sapiens

<400> 531 tgcaggaatt cggcacgagg ctgagcggat cctcacacga ctgtgatccg attctttcca 60

geggettetg	caaccaagcg	ggtcttaccc	ceggtectec	gcgtctccag	tectegeace	120
tggaacccca	acgtccccga	gagtccccga	atccccgctc	ccaggctacc	taagaggatg	180
agcggtgctc	cgacggccgg	ggcagccctg	atgetetgeg	ccgccaccgc	egtgetactg	240
agcgctcagg	gcggacccgt	gcagtccaag	tegeégeget	ttgcgtcctg	ggacgagatg	300
aatgtcctgg	cgcacggact	cctgcagctc	ggccaggggc	tgcgcgaaca	cgcggagcgc	360
acccgcagtc	agctgagcgc	gctggagcgg	cgcctgagcg	cgtgcgggtc	cgcctgtcag	420
ggaaccgagg	ggtccaccga	cctcccgtta	gcccctgaga	gccgggtgga	ccctgaggtc	480
cttcacagcc	tgcagacaca	actcaagget	cagaacagca	ggatccagca	actettecae	540
aaggtggccc	agcagcagcg	gcacctggag	aagcagcacc	tgcgaattca	gcatctgcaa	600
agccagtttg	gcctcctgga	ccacaagcac	ctagaccatg	aggtggccaa	gcctgcccga	660
	tgcccgagat					720
caccggctgc	ccagggattg	ccaggagctg	ttccaggttg	gggagaggca	gagtggacta	780
tttgaaatcc	agcctcaggg	gtctccgcca	tttttggtga	actgcaagat	gacctcagat	840
	cagtaattca					900
gaagcctaca	aggcggggtt	tggggatccc	cacggcgagt	tetggetggg	tctggagaag	960
	tcacggggga					1020
	agttgctgca					1080
	ctgcacccgt					1140
	ccttctccac					1200
	tctctggagg					1260
	gctccatccc					1320
	gccgctacta					1380
	cctcctagcg					1440
	tgcccgagga					1500
	acttgtggac					1560
	tgcatgcgtt					1620
	ccaaggggca					1680
	ttggggccag					1740
	ggcttgtgtg					1800
	ggacacaagc			cggagctcac	agagttcttg	1860
gaataaaagc	aacctcagaa	caaaaaaaaa	a			1891

<210> 532 <211> 1381 <212> DNA

<213> Homo sapiens

<400> 532 ttttttttt ttgaaggtat aaaacagcta atgttttact taactattct gaaagtaact 60 gacaggtaat aaaaatgtgg gttttattag tocactacag toacaataca atogtcatag 120 atttcccctt ctgtattcat cccaccaaac accaaacaga gcagtgtagc agtctggctt 180 tectcatgtg agteaceact gtggeteatt actttgteag etgaateete ttteteaget 240 tcatggttca gagtgagaga gttgggaatc ttctttctca gaagcacacg tcactggccc 300 atgggaatga taccacatgg gaatgggtcc caatcgtccc aggggggtag gaaggagtat 360 ccaaatttaa ggcaagggtc ccaatgctgc tcttctgtgt gatactgggt acattgtgtc 420 ccaggtgctc ctgcaggagt cattccacca aaggatgtac acatgttttt cccatggcca 480 cagetggagt ggggaagcac agcetgetgg aggeageece agtgggattt agettetgee 540 attteatgte aettatatea atgeagtgga ggteateata gaatetgtee eeegeeaage 600 ctccgtggat gaagagettt gtccctgctg ccaccatcac atgaccatgc cggggagatg 660 gaggatttcc aagtgtctct ggctgtgacc aggtcagagt gtttgcgtca aacacatgca 720 gettegtgte etgeaeggge tgggcacete teteteegee eecaaagaca tatagetggt 780 ttccaatggc tgccgatgat gtgtggaatg ttcttgggga tggtggggg ctggtcactt 840 ctggcgtggt ccacgtcctg gtttcaggat tcaggacttg tagacaattt cgatttcctg 900 attggttggc acctccaaat acccagatac ggtcaggtgt gcaggaggga atgaagctag 960 catgiticata coggggcaag aggccottgc aggtatotaa gtcccactgg tgttttccca 1020 gatccatggt gtgcacgtct gagaagcttc tgtttggatt tgctccccca acaatgaaga 1080

```
cettecetet ettggcatta ecaactgggg gtaaatatga acagetgtgg ecaactcqaq
cacagggget gtetecaggg acagteaagg tgtaccatgt tgettteetg ggettgtete
                                                                   1200
caggiticcaa qactqqcagt tgcttcatgg tgtcctgcgg cctaqqccac tqacaqctqt
                                                                   1260
ccccaaaqtc caqaqctcag ttaggctggc ttcacgtqgg cqqqacctec cqcaqcaqcc
                                                                   1320
geogetacea geocaqeaaa teteateeee aegtqqeaqt tetqeqqeqa ettaqqeeaq
                                                                   1380
                                                                    1381
```

<210> 533 <211> 1986 <212> DNA <213> Homo sapiens

<400> 533

taataataaa aaataacttt ttaaatgggc aaaggctctg aatagacatt tctccaaaaa 60 acatatacaa atqqccaatc aqcacatqaa aaqatqttca acatcatcaq ccatcaqqqa 120 aatacaaqtc aaaattqcaa tqqtatacaa ttaatatacc atttaacatt cccaatagta 1.80 gectacaact tecattteca etgtggaaaa eggtttggaa gtteeteacg qtagteaagt 240 tacttaactg ctctgtaaaa tgaagttaat cacattcact ttggatgaat gagttcatat 300 atattageta taattactae agcaattate attgtgtaca ttattactga ttgggtcaaa 360 ttattaaccc cgtctcccta attcatttac ttttgttact ttggatgaat atttaaagta 420 qtcttqaact gagatatgta tgtaaaggtt ctatcacatt ggcatataac atgtgctcaa 480 caaatgaaag ctataattat ttatttccaa agagtttaaa gattaaactt ccctcaaaac 540 aaacaaaagg caaggtaaca toocaagotg tgaqqqqotq aqtototoot aqqtqcaqqq 600 cagcacagga actggctgca caaggccaga gaggttacgt ggcggctctc ttcaaattag 660 accacacaga gogottoatt cootgtgoag tottcacate tteccagtee agtttgaegt 720 ctggaacctc atcttctggc tctggatcct tcctcaaggg cccccggggg gacgcaacca 780 caatgggcag agggccacat tcctcccgga tttccacaac atggaggccc ttcttatcag 840 ccagctgttg atgggtttcc tgtctggaga gcccacggaa gaggccctgg gtgaggctga 900 gcatattaat ggacccagag accttggcat acatgtcttt gatgccaatg agccggcaga 960 tggtgatgat ggccctgtgg cagcggaggc cgtaaccttt gggttgtttc ttcatcttga 1020 tatgcgtcct tttaaatctt aatgaaatat catggaatat tgtatggtct tcatatcgtt 1080 ctatataatg caaatggtga actgctctgt tctttgcttt cctgaaagca tccatccgat 1140 cagtagettt eccaatagaa aaacetcaag tateetqqta teaaaateet catatqttte 1200 tocacaggga ccagggtcag gggggccaag actgatgcct ccccatgagt ttccactcca 1260 tectegetee egittaacet teatettett ettteggtee eactettete tetgetggat 1320 catgicique tecacettet cetquiette ettquiettet tqqqcaatqq tetqcactqc 1380 tccatttttc ataaqaqqqa cattcaqtcc qqqccataqa aaaccataac qcccttcacc 1440 aatqatctqa cccctqttca qatcctttct tttcttcttt ttagttcttt tgcctcttcc 1500 tttttttgct ccagcaccag tctctgctaa agegcctttc cacagctcat ctgcagtcaa 1560 tttagtgaag aaactatatg gtctatactg ctggctcatc aggtgactgg gagaagaaat 1620 acagcattgt gtetgcagtg cacggetcaa getggcqtag qqatqqqtqt etetqqttee 1680 cagtgatgac aaatggccat tgccgagaac actottccat gccaaaatgg aagctgctgg taaggtgttt agggaacact gcctccccaa taaatgacct gccqtcccgc tacacagcac 1800 gggqagqcag cccacagcqc qcaccqcqqt cqccatqctq gagtccgagc cqcqcctcqq 1860 ceteogecca gggcagcett geccaeegee taeegegaet geteetegte aaaeggcaag 1920 cettgggccg caqcqgaatt cetgaggccc gagtccacgc agcagcqcaq gecgqqgtga 1980 qqqact 1986

<210> 534 <211> 1891

<212> DNA

<213> Homo sapiens

<400> 534 tgcaggaatt cggcacgagg ctgagcggat cctcacacga ctgtgatccg attctttcca geggettetg caaccaageg ggtettacce ceggteetee gegteteeag teetegcace 120 tggaacccca acgteecega gagteecega ateccegete ecaggetacc taagaggatg 1.80 agoggtgete egacggeegg ggeageeetg atgetetgeg eegecacege egtgetaetg 240 agegeteagg geggaeeegt geagtecaag tegeegeget ttgegteetg ggaegagatg 300 aatgteetgg egcaeggaet eetgeagete ggeeagggge tgegegaaca egeggagege 360 accegoagte agetgagege getggagegg egeetgageg egtgegggte egeetgteag 420 ggaaccgagg ggtccaccga cctcccgtta gcccctgaga gccgggtgga ccctgaggtc 480 cttcacagec tgcagacaca actcaagget cagaacagea ggatecagea actettccac 540 600 aaqqtqqccc aqcaqcagcg gcacctggag aagcagcacc tgcgaattca gcatctgcaa agecagtttg gcetectgga ceacaageac ctagaccatg aggtggccaa geetgcecga 660 agaaagaggc tgcccgagat ggcccagcca gttgacccgg ctcacaatgt cagccgcctg 720 780 caccqctqc ccaqqqattq ccaqqaqctq ttccaqqttq ggqaqaqqca qagtgqacta tttgaaatce agcetcaggg gtetcegcea tttttggtga actgcaagat gacetcagat 840 ggaggetgga cagtaattea gaggegecae gatggeteag tggaetteaa ceggeeetgg 900 gaagcetaca aggeggggtt tggggatece caeggegagt tetggetggg tetggagaag 960 gtgcatagea tcacggggga cegcaacage egcetggeeg tgcagetgeg ggactgggat 1020 ggcaacgccg agttgctgca gttctccgtg cacctgggtg gcgaggacac ggcctatagc 1080 ctgcagetca ctgcaccegt ggccggccag ctgggcgcca ccaccgtccc acccageggc 1140 eteteegtae cetteteeae ttgggaceag gateaegace teegeaggga caagaactge 1200 1260 gecaagagee tetetggagg etggtggttt ggeacetgea gecatteeaa eeteaaegge 1320 cagtacttcc gctccatccc acagcagcgg cagaagctta agaagggaat cttctggaag acetggeggg geegetaeta eeegetgeag geeaccaeca tgttgateea geecatggea 1380 gcagaggcag cetectageg teetggetgg geetggteee aggeecaega aagaeggtga ctettggetc tgcccgagga tgtggccgtt ccctgcctgg gcaggggctc caaggagggg 1500 ccatctggaa acttgtggac agagaagaag accacgactg gagaagcccc ctttctgagt 1560 geaggggge tgeatgegtt geeteetgag ategaggetg caggatatge teagacteta 1620 gaggcgtgga ccaaggggea tggagettea etecttgetg gecagggagt tggggaetea 1680 gagggaccae ttggggccag ccagactggc ctcaatggcg gactcagtca cattgactga eggggaceag ggettgtgtg ggtegagage gecetcatgg tgetggtget gttgtgtgta 1800 agtecectag ggacacaage aggegecaat ggtatetggg eggageteac agagttettg 1860 1891 qaataaaaqc aacctcagaa caaaaaaaaa a

<210> 535 <211> 1874 <212> DNA <213> Homo sapiens

<400> 535

cggacgegtg ggegaaccet gaaccetacg gteeegacee gegggegagg eegggtaeet 120 gggetgggat eeggageaag egggegaggg eagegeeeta ageaggeeeg gagegatgge agcettgatg acceegggaa eeggggeeec accegegeet ggtgacttet eeggggaagg 180 gagecaggga ettecegace ettegecaga geccaageag eteeeggage tgateegeat 240 gaagegagae ggaggeegee tgagegaage ggacateagg ggettegtgg eegetgtggt 300 gaatgggage gegeagggeg cacagategg tgegtgggga gggttgggeg tteetgacee 360 420 cgaetgggag gteageeega gagaetttgg gteeetgggg gtgegaeggt geeeeactae 480 cageacegge eccagggtge eccaeegetg tgggetgeea eceteaegeg taeeeccaca 540 taccaggggc catgetgatg gccatccgac ttcggggcat ggatctggag gagacctcgg tgctgaceca ggccctggct cagtcgggac agcagctgga gtggccagag gcctggcgcc 600 660 agcagettgt ggaeaageat tecaeagggg gtgtgggtga caaggteage etggteeteg

cacctgccct	ggcggcatgt	ggctgcaagg	ttataaacca	cctcctttcc	agacgggagc	720
ctataccgca	catgcagcaa	ccagtccatc	cacaggcagc	tcccaacctc	aagcetggee	780
caaagcctcc	aagaccctac	caaggettet	ccccaccctg	ctccccagca	cagttetece	840
caccccgttc	cccagcacag	cgcttggggc	ccctctggct	ccagaccagg	ccccttggag	900
				cttgggtccc		960
				agccttgttt		1020
				aaaacttcct		1080
				aaatccagct		1140
				actgtgcagg		1200
tecetgacea	ccaggtgcca	atgatcagcg	gacgtggtct	ggggcacaca	ggaggcacct	1260
tggataagct	ggagtctatt	cctggattca	atgtcatcca	gagcccagag	caggtacggg	1320
				ccctggccag		1380
agatcactgg	tggatcatta	gggtcactaa	tgagaacact	ggtcaaggtt	actcatgagt	1440
				ggatcataaa		1500
				acctgtagtc		1560
gggaggccga	agagggcaga	tcccttgaac	ccaggagttc	aaaaccagcc	tggataacac	1620
ggcaaaaccc	catctctaca	aaatagttcg	ctgcgtgtgg	tggtgcacgc	atgtggttcc	1680
				gggaggtcta		1740
				gtgagaccct		1800
tctgggaggc	agaggagccc	agttggagat	cagcctgggt	aatatagtga	aacttgatct	1860
ctacaaaaaa	aaaa					1874

<210> 536

<211> 704 <212> DNA

<213> Homo sapiens

<400> 536

gcgggaactg	cgtgagcgcg	tgacccatgg	cttggctgaa	gccggcaggg	60
cgtcagcacc	gagctgtacc	gggcgctgga	ggccgtgagg	ctgcagaaca	120
ctgtgagccg	tgccctacgt	cgtggctgcc	cttcgggggc	tectgetact	180
gccgaagacc	acgtgggcag	aggcgcaggg	ccactgcgcc	gatgccagcg	240
gatgtagggg	gcctggggga	gcaggacttc	ctgagtcgtg	acactagtgc	300
tggatcggcc	gcagggccgt	gcaacacctg	cgcaaggttc	agggctactc	360
					420
tagactctag	aggacatgtt	ttgaggccga	ggtgggcgga	tcacctgagg	480
aagaccagca	tgggaaacgt	ggcgaaaccc	catctctact	aaaaatacaa	540
gggcgtggtg	gcacacgcct	gtaatcccag	ctaaccctgg	atgetgagge	600
cttgaaccca	ggaggcagag	gttgcagtga	gccgagattg	cgccactgca	660
ggagacagag	ttagactccg	tctcaaaaaa	aaaa		704
	egteageace ctgtgageeg geegaagace gatgtagggg tggateggee ggagteecac tagactetag aagaceagea gggegtggtg cttgaaceca	cgtcagcacc gagctgtacc ctgtsgagccg tgccctacgt gccgaagacc acgtgggcag gatgtagggg cctgggggc ggagtcccac tcagcttcag tagactcgac gcaggtcct aagaccagca tgggaaacgt ggggtygtg gcacagccc ttgaacca ggagcagag	cgtcagoacc gagctgtacc ggscgctgga ctptgageog tgscctagy cgtggctgg gecgaagacc acgtgggaa aggcgaagg gatgtagggg geaggacette tggatcggc geaggscgt geaagacett ggagtcocae teagctteag gtagggaag tagacttag aggacatgt ttpaggcga aagaccagca tgggaaacgt gtggaaaccc ggcggaacacca ggagaaagg gtggaaacca gttgaacca gaggaagag gttgaagtg	cgtcagoacc gagctgtacc gggcgctgga ggccgtgagg ctgtagagce tgcctacgt cgtggctgc cttcgggggg gccgaagacc acgtggcag aggcgcaggg ccatcggg gatgtagggg gcctggggga gcaggactc ctgagtcgtg tggatccaac tcagctcag gcaggactc ctgagtcgtg ggagtccaac tcagctcag gtagggaag ggcctctggt tagactctag aggacatgtt ttgaggccga ggtggcgga aagaccagca tgggaaacgt ggcgaaaccc catctcact gggggtgggg gcaacagcc gtaatccag ctaacctga	gegggaactg egtsgegeg tgaccatgg ettggetgaa geoeggaagg getragacca gagetgtace ggggetggag geoegtgagg etgeagaaca etgtgaageog tgecetaegt ettggetgee etteggggge teetgetaet geogaagace aegtsggeag agggeggagg caattgegte gatgeaggg gatgtaggge geagggeetg geaacacetg ogcaaggtte agggetaetg ggagtecaec teagetteag gtagggaag ggeteetgt gaacetgg tagactetag aggacatgtt ttgaggeega ggteetgt gaacetgg tagactetag aggacatgtt ttgaggeega ggteetgag gggggtgggg gaacagetgtgaacec eatetetaet aaaaacacaa gggggtugg geaacgeet gtaateccag etaaceetgg atgetgagge cttgaaceca ggaggeagag gttgagatga geogagattg egceactgca gggagacagg ttgagatec ttcaaaaaa

<210> 537

<211> 1058

<212> DNA

<213> Homo sapiens

<400> 537 agatggccgc gctcctggcc gcctagagcc ggagggccc gcggagctgc ggaggcagcc 60

atggtcgggg	cgctgtgcgg	ctgctggttc	cgcctgggcg	gggcccgccc	gctcatcccg	120
ttgggcccga	ctgtggtaca	gacctccatg	agccggtccc	aggtagccct	gatgggaatg	180
agtctgctgc	tcatgctcct	actgtatgtg	gggctgccag	geccecetga	gcagacttcc	240
tgcctctggg	gagaccccaa	tgtcacagtc	ctggctggtc	tcacccctgg	caactcgccc	300
atcttttacc	gcgaggtgct	cccactcaac	caggcacaca	gggtggaggt	ggtgctgctt	360
catggaaagg	cctttaactc	tcacacgtgg	gagcagctgg	gcacactgca	gctactgtca	420
cagaggggct	accgggccgt	ggcccttgac	cttccaggtt	ttgggaactc	ggcaccttca	480
aaggaggcaa	gcacagaggc	agggcgggca	gcgctgctgg	agcgggcgct	gcgggacctg	540
gaggtacaga	atgccgtgtt	ggtgagcccc	tcgctgagtg	gccactatgc	cetgeeette	600
		gctacatgga				660
aactacaccc	aggagcaatt	ctgggctgtg	aagactccaa	cccttatcct	gtatggagag	720
ctggaccaca	tectggeteg	agagtcactg	cggcagctcc	gccacctgcc	caaccactct	780
gtggtgaagc	tacgcaatgc	aggccatgcc	tgttacctcc	acaageegea	agacttccac	840
cttgtcctgc	ttgccttcct	tgaccatcta	ccttgaacta	acccactccc	agctcccagc	900
ctggcatgag	cttggacagt	ctggaccgcc	accctccctg	aaccagggag	acageetetg	960
		gggtcagacc		tcctcatttc	atctcacaga	1020
cacaataaaa	aagcatattt	gtcctgccaa	aaaaaaa			1058

<210> 538

<211> 1895

<212> DNA <213> Homo sapiens

<400> 538

```
cccacgegte cgccgccgcc accgtaaggc taggccgcga gettagtect gggagccgcc
                                                                      60
teegtegeeg cegteagage egecetatea gattatetta acaagaaaac caactggaaa
                                                                     120
aaaaaatgaa atteettate ttegeatttt teggtggtgt teacetttta teeetgtget
                                                                      180
ctgggaaagc tatatgcaag aatggcatct ctaagaggac ttttgaaqaa ataaaagaag
                                                                      240
aaatagecag etgtggagat gttgetaaag caateateaa cetagetgtt tatggtaaag
                                                                     300
cccagaacag atcctatgag cgattggcac ttctqqttqa tactqttqqa cccaqactqa
gtggetecaa gaacctagaa aaaqccatec aaattatqta ccaaaacctq caqcaaqatq
                                                                     420
ggetggagaa agttcacetg gagecagtga gaatacecea etgggagagg ggagaagaat
cagetgtgat getggageca agaatteata agatagecat cetgggtett ggeageagea
                                                                     540
ttgggactcc tccagaaggc attacagcag aagttctggt ggtgacctct ttcgatgaac
                                                                     600
tgcagagaag ggcctcagaa gcaagaggga agattgttgt ttataaccaa ccttacatca
                                                                     660
actactcaag gacggtgcaa taccgaacgc agggggcggt ggaagctgcc aaggttgggg
                                                                     720
ctttggcatc tctcattcga tccgtggcct ccttctccat ctacagtcct cacacaggta
                                                                     780
ttcaggaata ccaggatggc gtgcccaaga ttccaacagc ctgtattacg gtggaagatg
                                                                     840
cagaaatgat gtcaagaatg gcttctcatg ggatcaaaat tgtcattcag ctaaagatgg
                                                                     900
gggcaaagac ctacccagat actgattcct tcaacactgt agcagagatc actgggagca
                                                                     960
aatatocaga acaggitgia ciggicagig gacatotgga cagotgggat gitgggcagg
                                                                    1020
gtgccatgga tgatggcggt ggagcettta tatcatggga agcactetca ettattaaag
                                                                    1080
atottggget gegtecaaag aggaetetge ggetggtget etggaetgea gaagaacaag
                                                                    1140
gtggagttgg tgccttccag tattatcagt tacacaaggt aaatatttcc aactacagtc
                                                                     1200
tggtgatgga gtctgacgca ggaaccttct tacccactgg gctgcaattc actggcagtg
                                                                    1260
aaaaggccag ggccatcatg gaggaggtta tgagcctgct gcagcccctc aatatcactc
                                                                    1320
aggteetgag ceatggagaa gggacagaca teaacttttg gatecaaget ggagtgeetg
                                                                    1380
gagecagtet acttgatgae ttatacaagt atttettett ceateactee caeggagaea
                                                                    1440
ccatgactgt ccatgggatc caaacgcaga tgaatgtttg ctgctgctgt tttgggctgt
                                                                    1500
tgtttcttat gtgtgttgca gacatggaag aaatgctgcc taggtcctag aaacagtaag
                                                                    1560
aaagaaaccg ttttcatgct tctggcccag gaatccctgg gtctgcaact ttgggaaaac
                                                                    1620
ecctetteae ataaccattt teateceaat teatetteaa ageacaacte taattteatg
                                                                    1680
ctttctcgtt attatctttc ttggatactt tccaaattct ctggattcta ggaaaaaggg
                                                                    1740
aatcattctc ccctcccctc cccacccaca tagaatcaac atatggtagg gattacagtg
                                                                    1800
ggggcatttt ctttatatca cctcttaaaa acattgtttc cactttaaaa agttaaacac
                                                                    1860
ttaataaatt tttggaaata atctgaaaaa aaaaa
                                                                    1895
```

<210> 539 <211> 2730 <212> DNA <213> Homo sapiens

ccctgagaag tcacctgggg ctccacqaaa

<400> 539

ttttttttttt ttttattttt tetttttaag tttgattttt tttatttcaa aatgetttge 60 aattaaatga attactgttc agaagtotcc cacttttcat acaaaaatac tgtgctactg 120 atacagttga aaaaattcaa tgatgtetet cetgeaggag aaattcacag cateeccagg 180 gtcaacatga aatctggccc tgtccccgcc actgggggct ccccaggcct gcgttcctga 240 taaactggga caggttttec aggcactgac caactateca ccaagggtcc tetgeeteca 300 agacagaccc tgaatcaata gcagcaactt teccatattt catgtaggga tatgtggagg 360 gggacaggaa ctctcccatt tccccagctg ggcctactac ctgcctgccc tgttcactct 420 ggtgccatga ggcaggttca gtgattgatt ggtcttgcct gctgcagagg acctggccag 480 ctccagaagg gtcactcatc aggtcctgca aaggtctgta tcattaatca gtgtcatcag 540 tgtcctcaga agacactagc agagtccagg gtgatgcgtt cagccacaag cacaaagact 600 gettttteta aagageagga tgaggtgaat gtggggaaegg aaageagttg teaegaagge 660 tgtgtggete tgctggggga gaggcateca cagtetgtge caaggaggta ceteaccetg 720 tgcagcagga gcgttaaggc caaaaaacaa aaggggccaa cagaaaacag ctcaggtgat 780 ggggggagga gcagcaagaa aaaacgacaa ccgagaccaa ctgaaggttc ggtcaggaat 840 geaggetett eegtetatae agtgtttaaa aagateeaaa tgtgaetgag ateatteeag 900 octgoacttt ttatttgtag goagaaggaa ogggataggt tgaggggcat gaogggggct 960 ctcgccacct cttgtctgca cctctggaac aggtgggagc cgaatcattc aagtcctacc 1020 tggtcagact cccaaccacg ctgaggcagg cccttacctt ggattgcctc atgggcctcc 1080 ctettgaaaa gacceteact etgtttggaa aagateeett ageageeata ateaggaaag 1140 agactotaga gogagoccag ggottoccca aagogggatt ttotgtoctg ttttcagotg 1200 gaaattgaag teettggggg eetegaagat gagcaegatg gtggageeca ggttgaacte 1260 gcccaggtgc tcgcccttac gcatggggac gccctctcta ttggtgtgcg tcacgaagct 1320 gaagtcattg taggagccot tgctgtgcct tgggctgttt gtgtgcaggt cccggtcaaa 1380 gtagatgega atggageece agttgggtgg cececacage tgteagtgag aagaageeat 1440 gtttccagtc ccccgtcagg accaccogct cgttatggca gaagagctct ttgatccagc 1500 gagccatgcc agggttcact gacatcaggg agcctgggaa gtggcgccgg tgggacacag 1560 tocagtoggt gggggagtgg aagcagtggt agtocccagg ggccaggtag atgacacagt 1620 gatagagete attocettee egggtgacea getggttett gaaggagtea caegaegegg 1680 etggtgggaa gggcaggtcc tctgtgcaca tacgcgggcc caggaacgac tccagggagt 1740 aggtgacccc ctttacctgc tocacctcac agttettcac etgeccaaag ttgaggatcc 1800 ttccatccga tgggctaatc acgctgtgca ggccacagac aggccgggcc tgcggcttca 1860 gettgegeeg gaagaacteg etgaggttge ggtagtgatg eaggteetee acageggeet 1920 ctttcatgtt caccccaaac gtccagatgt acaggetgta gacgggcctg cgcagccagt gtggcagete cacetgattg aggegaeeee aggeeegtga cageaagege gttggcaetg acttgtacaa agccaccetg ettacgggcc tecateceae ceggetgage ggtetgaggg 2100 egeegaaggg caggaggtag tagaggaegg teaagggeea ggagegeagt tteagagegg 2160 gtetggacat geageteage tgeeceagee teegeeteag ggeeagetgg gggaagtgea 2220 accatttege egegeggage tetggteett geegegeete tgaetgaeae ateatgggee 2280 ggcgcaggga gggcggggcg aggctcactc gatcactccc tttgttttcc tctttcctcc 2340 cotteccecg agecageaga tetectgtge tgteactget ccagggeete tgcetetgeg 2400 aggotggttg gtggcgccgc ttcctgggtt tggttcagtc tcggtggctc acagggtgca 2460 gaatagaggg tcagggccgc gcccggcagg agataagatg tggaggaagt gagctcacgc 2520 agecegggec gtgcccacgt ggggacggaa aaaaaqecca cqactegete aacettqtee 2580 geggggetee teaggeeggg geegegtegt cacaqetqqq aqaqeecace tqcqaecqaa 2640 ggccctagaa gggcacccc acccggcact ggccctctga gegggeaggg tggggggcct 2700

2730

<210> 540 <211> 3707 <212> DNA <213> Homo sapiens

<400> 540

ggctgcccga gcgagcgttc ggacctcgca ccccgcgcgc cccgcgccgc cgccgccgc 60 ggettttgtt gteteegeet eeteggeege egeegeetet ggacegegag eegegegege 120 egggacettg getetgeeet tegegggegg gaactgegea ggaceeggee aggateegag 180 agaggegegg gegggtggee gggggegeeg ceggeecege catggagete egggeecgag 240 getggtgget getatgtgeg geegeagege tggtegeetg egeeegeggg gaeeeggeea 300 gcaagageeg gagetgegge gaggteegee agatetaegg agecaaggge tteagetega 360 gegtaegtge cecaggegga gatetegggt gageacetge ggatetgtee ceagggetae 420 acctgctgca ccagcgagat ggaggagaac ctggccaacc gcagccatgc cgagctggag 480 accgegetee gggacageag cegegteetg caggecatge ttgccaccca getgegeage 540 ttegatgace acttecagea cetgetgaac gacteggage ggacgetgca ggecacette 600 cccggcgcct tcggagagct gtacacgcag aacgcgaggg ccttccggga cctgtactca 660 gagetgegee tgtactaceg eggtgecaac etgcacetgg aggagacget ggecgagtte 720 tgggcccgcc tgctcgagcg cctcttcaag cagctgcacc cccagctgct gctgcctgat 780 gactacetgg actgeetggg caageaggee gaggegetge ggeeettteg gggaggeece 840 gagtagaget gegeetgegg gecacecagt geegttegtg getgetegeg teetttgtge 900 agggeetggg egtggeeage egaegtggte eggaaagtgg eteaggteee eetgggeege 960 ggagtgette gagagetgta attgaagetg ggtettaetg tggetteaet gegtgggagt 1020 ccccggcgcc aggccatgcc ctgactattg ccgaaatgtg ctcaagggct gccttgccaa 1080 ccaggccgac ctggacgccg agtggaggaa cctcctggac tccatggtgc tcatcaccga 1140 caagttetgg ggtacategg gtgtggagag tgtcategge agegtgeaca egtggetgge 1200 ggaggccatc aacgccctcc aggacaacag ggacacgctc acggccaagg tcatccaggg 1260 ctgcgggaac cccaaggtca acccccaggg ccctgggcct gaggagaagc ggcgccgggg 1320 caagetggee cegegggaga ggecaeette aggeaegetg gagaagetgg teteegaage 1380 caaggeecag etcegegaeg tecaggaett etggateage etcecaggga caetgtgeag 1440 tgagaagatg geeetgagea etgecagtga tgacegetge tggaaeggga tggecagagg 1500 ccggtacctc cccgaggtca tgggtgacgg cctggccaac cagatcaaca accccgaggt 1560 ggaggtggac atcaccaagc cggacatgac catccggcag cagatcatgc agetgaagat 1620 catgaccaac eggetgegea gegeetacaa eggeaacgae gtggaettee aggaegeeag 1680 tgacgacggc agcggctcgg gcagcggtga tggctgtctg gatgacctct gcggccggaa 1740 ggtcagcagg aagagctcca gctcccggac gcccttgacc catgccctcc caggcctgtc 1800 agagcaggaa ggacagaaga ceteggetge cagetgeece cageeceega cetteeteet 1860 geocetecte etetteetgg ceettacagt agecaggece eggtggeggt aactgeecca 1920 aggeceeagg gacagaggee aaggaetgae tttgecaaaa atacaacaca gacgatattt 1980 aattcacctc agcctggaga ggcctggggt gggacaggga gggccggcgg ctctgagcag 2040 gggcaggcgc agaggtccca gccccaggcc tggcctcgcc tgcctttctg ccttttaatt 2100 ttgtatgagg tcctcaggtc agctgggagc cagtgtgccc aaaagccatg tatttcaggg 2160 acetcagggg cacetcegge tgcctagece teccecage tecctgcace geegcagaag 2220 cageceeteg aggeetaeag aggaggeete aaageaaeee getggageee acagegagee 2280 tgtgccttcc tccccgcctc ctcccactgg gactcccagc agagcccacc agccagccct 2340 ggcccacccc ccagcctcca gagaageccc gcacgggetg tctgggtgtc cgccatccag 2400 ggtctggcag agcctctgag atgatgcatg atgccctccc ctcagcgcag gctgcagagc 2460 ceggececae etecetgege cettgagggg ceccagegte tgeagggtga egectgagae 2520 agcaccactg ctgaggagtc tgaggactgt cctcccacag acctgcagtg aggggccctc 2580 catgogoaga tgaggggcca ctgacccacc tgcgcttctg ctggaggagg ggaagctggg 2640 cccaaaggcc cagggaggca gcgtgggctc tgccaatgtg ggctgcccct cgcacacagg 2700 geteacaggg caggeettge tggggtecag ggetgttgga ggaccccgag ggetgaggag 2760 cagecaggae eegeetgete eeateeteae eeagateagg aaccagggee teeetgttea 2820 cggtgacaca ggtcagggct cagagtgacc ctcagctgtc acctgctcac agggatgctg 2880 gtggctggtg agacecegea etgeagaegg gaatgeetag gteeetteee gacecageea 2940 getgeaggge acggggaeet ggatagttaa gggettttee aaacatgeat ceatttactg 3000 acactteetg teettgttea tggagagetg ttegeteete ceagatgget teggaggeee 3060

3120

gcagggccca cettggaccc tggtgacctc ctgtcactca ctgaggccat cagggccctg

```
ecceaggest ggacqqqccc testteeste etqtqcccca qetqccaqqc qqcctqqqq
                                                                   3180
aggggtggtg tggtgttggg aaggggtcct gcagggggag gaggacttgg agggtctggg
                                                                   3240
ggcagctgtc ctgaaccgac tgaccctgag gaggccgctt agtgctgctt tgcttttcat
                                                                   3300
caccytcccy cacaytygac ggaggteccc ggttgctggt caggteccca tggcttgttc
                                                                   3360
tetggaacct gactttagat gttttgggat caggagceec caacacagge aagtecacce
                                                                    3420
cataataacc ctgccagtgc cagggtgggc tggggactct ggcacagtga tgccgggcqc
                                                                   3480
caggacaqca geactcccgc tgcacacaga eggcctaggg gtggcgctca gaccccaccc
                                                                   3540
tacgeteate tetggaaggg geagecetga gtggteactg gteagggeag tggeeaagee
                                                                   3600
tgctgtgtcc ttcctccaca aggtcccccc accgctcagt gtcagcqqqt qacqtqtqtt
                                                                    3660
cttttgagtc cttgtatgaa taaaaggctg gaaacctaaa aaaaaaa
                                                                   3707
```

<210> 541 <211> 620 <212> DNA <213> Homo sapiens

60

120

180

240

300

360

420

480

540

600

620

<211> 2475 <212> DNA <213> Homo sapiens <220> <221> misc_feature <222> (1)...(2475) <223> n = a,t,c or g

agagateete aaetteaget

<210> 542

<400> 542 agagggaggg aacgatttaa ggagcgaata ctactggtaa actaatggaa gaaatctgct 60 gcaccactgg atattgggag tgtgtggcat gcatcctcat catcaggaaa ctctaaaaaa 120 gaaccgagtg gtgctagcca aacagctgtt gttgagcgaa ttgttagaac atcttctgga 180 gaaggacatc atcaccttgg aaatgaggga gctcatccag gccaaagtgg gcagtttcag 240 ccagaatgtg gaactcctca acttgctgcc taagaggggt ccccaagctt ttgatgcctt 300 ctgtgaagca ctgagggaga ccaagcaagg ccacctggag gatatgttgc tcaccaccct 360 ttctgggctt cagcatgtac tcccaccgtt gagctgtgac tacgacttga gtctcccttt 420 tccggtgtgt gagtcctgtc ccctttacaa gaagctccgc ctgtcgacag atactgtgga 480

acactcccta	gacaataaag	atggtcctgt	ctgccttcag	gtgaagcctt	gcactcctga	540
attttatcaa	acacacttcc	agctggcata	taggttgcag	teteggeete	gtggcctagc	600
actggtgttg	agcaatgtgc	acttcactgg	agagaaagaa	ctggaatttc	gctctggagg	660
ggatgtggac	cacagtactc	tagtcaccct	cttcaagctt	ttgggctatg	acgtccatgt	720
		aggaaatgca				780
		cctgcatcgt				840
catctatggt	gtggatggga	aactgctcca	gctccaagag	gtttttcagc	tctttgacaa	900
cgccaactgc	ccaagcctac	agaacaaacc	aaaaatgttc	ttcatccagg	cctgccgtgg	960
aggtgctatt	ggatcccttg	ggcacctcct	tctgttcact	gctgccaccg	cctctcttgc	1020
tctatgagac	tgatcgtggg	gttgaccaac	aagatggaaa	gaaccacgca	ggatcccctg	1080
ggtgcgagga	gagtgatgcc	ggtaaagaaa	agttgccgaa	gatgagactg	cccacgcgct	1140
cagacatgat	atgcggctat	gcctgcctca	aagggactgc	cgccatgcgg	aacaccaaac	1200
gaggttcctg	gtacatcgag	gctcttgctc	aagtgttttc	tgagcgggct	tgtgatatgc	1260
acgtggccga	catgctggtt	aaggtgaacg	cacttatcaa	ggatcgggaa	ggttatgctc	1320
ctggcacaga	attccaccgg	tgcaaggaga	tgtctgaata	ctgcagcact	ctgtgccgcc	1380
acctctacct	gttcccagga	caccetecca	catgatgtca	cctccccatc	atccacgcca	1440
agtggaagcc	actggaccac	aggaggtgtg	atagagcctt	tgatcttcag	gatgcacggt	1500
ttctgttctg	cccctcagg	gatgtgggaa	teteccagae	ttgtttcctg	tgcccatcat	1560
ctctgccttg	gagtgtggga	ctccaggcca	gctccttttc	tgtgaagccc	tttgcctgta	1620
gagccagcct	tggttggacc	tattgccagg	aatgtttcag	ctgcagttga	agagcctgac	1680
aagtgaagtt	gtaaacacag	tgtggttatg	gggagagggc	atataaattc	cccatatttg	1740
tgttcagttc	cagcttttgt	agatggcact	ttagtgattg	cttttattac	attagttaag	1800
atgtcttgag	agaccatctc	ctatctttta	tttcattcat	atcctccgcc	ctttttgtcc	1860
tagagtgaga	gtttggaagg	tgtccaaatt	taatgtagac	attatcttt	ggctctgaag	1920
aagcaaacat	gactagagac	gcaccttgct	gcagtgtcca	gaageggeet	gtgcgttccc	1980
ttcagtactg	cagcgccacc	cagtggaagg	acactcttgg	ctcgtttggg	ctcaaggcac	2040
cgcagcctgt	cagccaacat	tgccttgcat	ttgtacctta	ttgatctttg	cccatggaag	2100
tctcaaagat	ctttcgttgg	ttgtttctct	gagctttgtt	actgaaatga	gcctcgtggg	2160
		aagaatggtg				2220
		acgtccatct				2280
		agatttctag				2340
		tcatttcatc				2400
		tgtaaatgct	caaagatgta	atgtagntct	ttgttcctgc	2460
tttctctttc	agtat					2475

<210> 543 <211> 862

<212> DNA

<213> Homo sapiens

<400> 543 gttttttttg tggaccccac tcaaaacgta tttattgaat gacaatttct tagtacagtg 60 tatactatcc ccaccaaagg aaaaaaacat taagagcaaa acaaggggtg gggggtggga 120 atattgctaa agaaaattct aataagagtt atctataatt atagctttta tttattatat 180 cttcattcaa tcatttatat cacaattagt ctaattgcat tcttgatgaa taactgactt 240 cagcaaagga gtcaatccac taagcaaagt tcatatatat ttttcaagat gttcttcttt 300 egatettgag tetttaetet eetggattee caagagaact geattageet etagtacagt 360 tgtaatetgt tgttgetece aggaacetag acgtaagtte aagatetaat ageegeaaac 420 eggaceetgg tteetttetg ggtatttete tecatecact tetggtette tacatacaca 480 atqaaacttt ccaccaaaat ctatgtacca gatcattctc cacaatatga aagatccgtc 540 caatgaccag tttatccttt gcaggtccca tctgtgtaag aggagaatgt ctcagcatag 600 atgcaaagga ttccacattt tttggagaac cettetgtag gggetecace ttetgtagaa 660 geteegagtg cegetecaac gegetegega aacegeetge gegegtetta ggeteettgg 720 cattggaact accactttcg gatccactct cagtgcctac accccgaaag ggcctgaaga 780 agagaaacac tegeagaaaa tggetetegg cagecacage aegggteega cacagegeeg 840 ccatgactte tttacctetg ac 862

<210> 544 <211> 5656 <212> DNA <213> Homo sapiens

<400> 544 aattooggge gecagteeeg eteogogeeg egeogeteeg eteoggeteg ggeteogget 60 egectegggc tgggcteggg cteegggggg ggtgteecec gtgeegggte eeggtatggg 120 tggggacget ccaaccatgg cccgtgccca ggcgctcgtg ttggaactca ccttccaget 180 ctgcgcgccg gagaccgaga ctccggaagt tggttgcacc ttcgaggagg gaagtgaccc 240 ageagtgeee tgegagtaca gecaggeeca gtacgatgae ttecagtggg ageaagtgeg 300 aatccaccct ggcacccggg cacctgcgga cctgccccac ggctcctact tgatggtcaa 360 cacttoccag catgocccag gocagogage coatgtoate ttccagagee tgagogagaa 420 tgatacccac tgtgtgcagt tcagctactt cctgtacagc cgggacgggc acagcccggg 480 caccetggge gtetacgtge gegttaatgg gggeceeetg ggeagtgetg tgtggaatat 540 gaetggatee caeggeegte agtggeacea ggetgagetg getgteagea etttetggee 600 caatgaatat caggtgctgt ttgaggccct catctcccca gaccgcaggg gctacatggg 660 cotagatgae atcotgotto toagetaceo otgogoaaag gooccacact totocogoot 720 ggqcqacgtg gaggtcaacg cgggccagaa cgcgtcgttc cagtgcatgg ccgcgggcag 780 840 ageggeegag geegaaeget teetettgea aeggeagage ggggegetgg tgeeggegge 900 qqqqqtqqqq cacatcagec accqqcqctt cctqqccact ttcccqctqq ctqccqtqaq 960 ccgcgccgag caggacctgt accgctgtgt gtcccaggcc ccgcgcggac gcgggacgtc 1020 totcaactto goggagttta tggtcaagag cocccaacto ccategogco cocacagotg ctgogtgotg geoccaccta ceteateate cageteaaca ceaactecat cattggegae 1080 1140 gggccgatcg tgcgcaagga gattgagtac cgcatggcgc gcgggccctg ggctgaggtg 1200 cacgccgtca gcctgcagac ctacaagctg tggcacctcg accccgacac agagtatgag atcagogtgc tgctcacgcg tcccggagac ggcggcactg gccgccctgg gccacccctc 1260 atcagoogca ccaaatgogc agagoccatg agggocccca aaggootggc ttttgotgag 1320 atecaggeee gteagetgac cetgeagtgg gaaccactgg getacaacgt gacgegttge 1380 1440 cacacctata ctgtgtcgct gtgctatcac tacaccctgg gcagcagcca caaccagacc ataccgagag tgtgtgaaga cagagcaagg tgtcagccgc tacaccatga agaacctgct 1500 1560 gccctategg aacgttcacg tgaggcttgt cctcactaac cctgaggggc gcaaagaggg 1620 caaqqaqqtc actttccaga cggatgaqga tqtgcccagt gggattgcag ccgagtccct 1680 qacetteaet ceaetqqaqq acatqatett ceteaaqtqq gagqaqeece aggaqeecaa tggtctcatc acccaqtatg agatcagcta ccagagcatc gagtcatcag acccggcagt 1740 quacqtqcca qqcccacqac qtaccatctc caaqctccqc aatqaqacct accatqtctt 1800 ctccaacctg cacccaggca ccacctacct gttctccgtg cgggcccgca caggcaaagg 1860 cttcggccag gcggcactca ctgagataac cactaacatc tctgctccca gctttgatta 1920 tgeegacatg cegteacece tgggegagte tgagaacace atcacegtge tgetgaggee 1980 2040 ggcacagggc cgcggtgcgc ccatcagtgt gtaccaggtg attgtggagg aggagcaggg 2100 cagcaggagg ctgcggcggg agccaggtgg acaggactgc ttcccagtgc cattgacctt 2160 cgaggeggeg ctggcccgag ggctggtgga ctacttcggg gccgaactgg cggccagcag totacctgag gccatgccct ttaccgtggg tgacaacaag acctaccgag gcttctggaa 2220 cccaccactt gagcctagga aggcctatct catctacttc caggcagcaa gccacctgaa 2280 gggggagacc cggctgaatt gcatccgcat tgccaggaaa gctgcctgca aggaaagcaa 2340 geggeceetg gaggtgteec agagategga ggagatgggg ettateetgg geatetgtge 2400 aggggggett getgteetea teetteteet gggtgeeate attgteatea teegeaaagg 2460 gagagaccac tatgcctact cotactacco gaageeggtg aacatgacca aggccacegt 2520 caactaccgc caggagaaga cacacatgat gagcgccgtg gaccgcagct tcacagacca 2580 gagcaccetg caggaggacg ageggetggg cetgteette atggacacce atggetacag 2640 2700 caccegggga gaccagegca geggtggggt cactgaggcc agcagectee tggggggete cccgaggegt ccctgtggcc ggaagggctc cccataccac acggggcagc tgcaccctgc 2760 2820 ggtgegtgte geagacette tgeageacat caaccagatg aagaeggeeg agggttaegg 2880 cttcaagcag gagtatgaga gcttctttga aggctgggac gccacaaaga agaaagacaa

2940

ggtcaaggge agccggcagg agccaatgcc tqcctatgat cggcaccgag tgaaactgca

cccgatgctg	ggagacccca	atgccgacta	cattaatgcc	aactacatag	atattcggat	3000
	ggttaccaca					3060
	gacttctggc					3120
	gtcgaggtgg					3180
cacctacggg	gacatcaaga	ttatgetggt	gaagacagag	accetggetg	agtatgtegt	3240
	gccctggagc					3300
cttcacagcg	tggccagagc	atggcgtccc	ctaccatgcc	acggggctgc	tggctttcat	3360
	aaggcttcca					3420
	cgcacaggtt					3480
tgagggcgtc	gtggacattt	acaactgtgt	gaagactctc	tgctcccggc	gtgtcaacat	3540
gatccagact	gaggagcagt	acatcttcat	tcatgatgca	atcctggagg	cctgcctgtg	3600
tggggagacc	accatccctg	tcagtgagtt	caaggccacc	tacaaggaga	tgatccgcat	3660
	agtaattcct					3720
	gacgtggagg					3780
ccgcagcatg	gacgtcctgc	cgcccgaccg	ctgcctgccc	ttcctcatct	ccactgatgg	3840
	aactacatta					3900
	ctgcacccgc					3960
ttacgggtgc	acctccatcg	tcatgctcaa	ccagctgaac	cagtccaact	ccgcctggcc	4020
	tactggccag					4080
	acagctgatg					4140
	gaggggcacc					4200
	cctgactcca					4260
	agtggggatg					4320
	tgcgccctgc					4380
acgttttctt	tgctgccaaa	acceteegga	actacaaacc	caacatggtg	gagaccatgg	4440
atcagtacca	cttttgctac	gatgtggccc	tggagtactt	ggaggggctg	gagtcaagat	4500
	tggcctgggg					4560
tggcgaggaa	gatcagtgcc	tcctgctctg	cccaaacaca	ctcccatggg	gcaagcactg	4620
	tgggctatct					4680
	tggtgggcca					4740
	caggcctgtg					4800
	gctctggggg					4860
	aggccctgca					4920
	ggtagaggat					4980
	ctggggaagc					5040
	gggaactgca					5100
	ctatcccctc					5160
	gcctattact					5220
	gaagtcacct					5280
	cttgggccag ctcctggtca					5340 5400
	tetggagtte				accccatte ·	5460 5520
catacctcaa	tttccccatc	tatasactat	agatatgagt	agraggedae	at aggregatio	5520
	ggcataagct					5640
atgcctaaaa		5~cycccyta	aagegeeetg	cuaacaaacg	egocococga	5656
~ ogoc caaaa	uuuuud					2030

<210> 545 <211> 2735

<212> DNA

<213> Homo sapiens

<400> 545
Ettlettette tettattitt tettettaag tetgatette tettatteaa aatgeettige 6
aataaaatga attactgete agaagtetee cacetetteaa acaaaaatae tetgeetaceg 120
atacagettga aaaaatteaa tegateteet cetgeaggag aaatteaag catececagg 180

gtcaacatga	aatctggccc	tgtccccgcc	actgggggct	ccccaggcct	gegtteetga	240
taaactggga	caggttttcc	aggcactgac	caactatcca	ccaagggtcc	tetgeeteea	300
	tgaatcaata					360
	ctctcccatt					420
	ggcaggttca					480
ctccagaagg	gtcactcatc	aggtcctgca	aaggtetgta	tcattaatca	gtgtcatcag	540
tgtcctcaga	agacactage	agagtccagg	gtgatgcgtt	cagccacaag	cacaaagact	600
gctttttcta	aagagcagga	tgaggtgaat	gtgggaacgg	aaagcagttg	tcacgaaggc	660
tgtgtggctc	tgctggggga	gaggcatcca	cagtctgtgc	caaggaggta	cctcaccctg	720
tgcagcagga	gcgttaaggc	caaaaaacaa	aaggggccaa	cagaaaacag	ctcaggtgat	780
ggggggagga	gcagcaagaa	aaaacgacaa	ccgagaccaa	ctgaaggttc	ggtcaggaat	840
gcaggctctt	ccgtctatac	agtgtttaaa	aagatccaaa	tgtgactgag	atcattccag	900
	ttatttgtag					960
ctcgccacct	cttgtctgca	cctctggaac	aggtgggagc	cgaatcattc	aagtcctacc	1020
	cccaaccacg					1080
	agaccctcac					1140
gagactctag	agcgagccca	gggcttcccc	aaagcggatt	ttctgtcctg	ttttcagctg	1200
gaaattgaag	tccttggggg	cctcgaagat	gagcacgatg	gtggagccca	ggttgaaact	1260
	gctcgcccct					1320
aagctgaagt	cattgtagga	gcccttgctg	tgccttgggc	tgtttgtgtg	caggtcccgg	1380
tcaaagtaga	tgcgaatgga	gccccagttg	ggtggccccc	acagctgtca	gtgagaagaa	1440
gccatgtttc	cagtcccccg	tcaggaccac	ccgctcgtta	tggcagaaga	gctctttgat	1500
	atgccagggt					1560
	tcggtggggg					1620
acagtgatag	agctcattcc	cttcccgggt	gaccagctgg	ttcttgaagg	agtcacacga	1680
cgcggctggt	gggaagggca	ggtcctctgt	gcacatacgc	gggcccagga	acgactccag	1740
	acccccttta					1800
	tccgatgggc					1860
	cgccggaaga					1920
	atgttcaccc					1980
	agctccacct					2040
	tacaaagcca					2100
gagggggcg	aagggcagga	ggtagtagag	gacggtcaag	ggccaggagc	gcagtttcag	2160
agcgggtctg	gacatgcagc	tcagctgccc	cagcctccgc	ctcagggcca	gctgggggaa	2220
	ttcgccgcgc					2280
	agggagggcg					2340
	ccccgagcca					2400
	ggttggtggc					2460
	gagggtcagg					2520
	gggccgtgcc					2580
	gctcctcagg					2640
	tagaagggca			tctgagcggg	cagggtgggg	2700
cgcctccctg	agaagtcacc	tggggctcca	cgaaa			2735

```
<210> 546
<211> 4146
<212> DNA
<213> Homo sapiens
<220>
<221> misc feature
<222> (1)...(4146)
<223> n = a,t,c or q
```

<400> 546 gagacatggc ccgggcagtg gctcctggaa gaggaacaag tgtgggaaaa gggagaggaa 60

gccggagcta	aatgacagga	tgcaggcgac	ttgagacaca	aaaagagaag	cgttcctctc	120
ggatccaggc	attgcctcgc	tgetttettt	tctccaagac	gggctgagga	ttgtacagct	180
ctaggcggag	ttggggctct	teggateget	tagattetee	tetttgetge	atttccccc	240
acgtectegt	tetecegegt	ctgcctgcgg	acccggagaa	gggagaatgg	agagggggct	300
geegeteete	tgcgccgtgc	tegecetegt	cctcgccccg	gccggtgctt	ttcgcaacga	360
taaatgtggc	gatactataa	aaattgaaag	ccccgggtac	cttacatete	ctggttatcc	420
tcattcttat	cacccaagtg	aaaaatgcga	atggctgatt	caggctccgg	acccatacca	480
gagaattatg	atcaacttca	acceteactt	cgatttggag	gacagagact	gcaagtatga	540
	gtcttcgatg					600
aaagatagco	ceteeteetg	ttgtgtcttc	agggccattt	ctttttatca	aatttgtctc	660
tgactacgaa	acacatggtg	caggattttc	catacgttat	gaaattttca	agagaggtcc	720
tgaatgttcc	cagaactaca	caacacctag	tggagtgata	aagtcccccg	gattecetga	780
	aacagcettg					840
	attttgaaag					900
	acgaccggct					960
	gtggacagaa					1020
	acaccgacag					1080
	gtgtctcaga					1140
	ctgaccagat					1200
	tgaactaccc					1260
	tagacttggg					1320
	aaaccaagaa					1380
	actggatcac					1440
	cagatgttgt					1500
	ctgcaacttg					1560
	attatecttg					1620
	catcatccaa					1680
	gctctggctg					1740
	acctggggga					1800
	acaaggtgtt					1860
	tgatcatgga					1920
	cacctgagct					1980
	gagccactca					2040
	ctacagctgg					2100
	ccaactgcca					2160
actgtgctgg	ccacagaaaa	geccaeggte	atagacagca	ccatacaatc	agagtttcca	2220
	ttaactgtga					2280
catgacaatc	acgtgcaget	caagtggagt	gtgttgacca	gcaagacggg	acccattcag	2340
	gagatggcaa					2400
	tggtgagccc					2460
	tgtctgggtc					2520
	acgatcagct					2580
gaagggcgtg	tettgeteca	caagtetetg	aaactttatc	aggtgatttt	cgagggcgaa	2640
atcggaaaag	gaaaccttgg	tgggattgct	gtggatgaca	ttagtattaa	taaccacatt	2700
tcacaagaag	attgtgcaaa	accagcagac	ctggataaaa	agaacccaga	aattaaaatt	2760
gatgaaacag	ggagcacgcc	aggatacgaa	ggtgaaggag	aaggtgacaa	gaacatetee	2820
aggaagccag	gcaatgtgtt	gaagacctta	gaacccatcc	tcatcaccat	catagccatg	2880
agcgccctgg	gggtcctcct	gggggctgtc	tgtggggtcg	tgctgtactg	tgcctgttgg	2940
cataatggga	tgtcagaaag	aaacttgtct	gccctggaga	actataactt	tgaacttgtg	3000
	agttgaaaaa					3060
aggcagacag	agatgaaaag	acagtcaaag	gacggaagtg	gaaggacggg	agtgagctgg	3120
	atctttcact					3180
	agcttcaatg					3240
toggactcat	gtgcagtcag	cttttttcct	gttggtttca	tttgaataat	cagatgetgg	3300
	aagtatgatt					3360
	teceetttgt					3420
	ttccgtgtgg					3480
	atcaccgcat					3540
	taggcaaaga					3600
	gtgtgtcagc					3660
ttccggtgtt	gtactaaacc	tegtgettgt	gaactccata	cagaaaacgg	tgccatccct	3720
	ggccactggg					3780
	agtetatgte					3840
cattaacgac	ccactctgct	tettgetggt	gaaagccctg	ctctttaatc	aaactctggt	3900

ggcccactga	ctaagaagaa	agtttattt	cgtgtgagat	gccagcccct	ccgggcaggc	3960
aagggctctg	aagatttggg	caacgtgggc	ttaaattgtt	ctgctttttc	tgtagttcaa	4020
tttcatgttt	cttgnaccct	ttttgtataa	agctgcaata	ttctctctta	ttgttcnttt	4080
catatggaat	gtaatttctc	gtgccgaatt	cctgcaggcn	aatcaattaa	aatccccccg	4140
gegece						4146

<210> 547 <211> 1348 <212> DNA <213> Homo sapiens

<400> 547

ggcacgaggg cagtgccctc acctgggcca gccactacca ggagagactg aactccgaac 60 agagetgeet caatgagtgg aeggetatgg eegacetgga gtetetgegg ceteceageg 120 ccgagcctgg cgggtcagtg tgtggagggg agggactggg tggaggggaa ggcaggataa 180 tgcagtgggg ggcatggtgg agaggggaaa gggccccttg actgaggggc tctgctccca 240 ggtcctcaga acaggagcag atggagcagg cgatccgtgc tgagctgtgg aaagtgttgg 300 atgteagtga cetggagagt gteactteca aagagateeg ceaggetetg gagetgegee 360 tggggctccc cctccagcag taccgtgact tcatcgacaa ccagatgctg ctgctggtgg 420 cacagoggga cogagoctoc ogcatottoc cocacotota cotgggotoa gagtggaacg 480 cagcasacct ggaggagetg cagaggaaca ggtagggeta tgageecete gggeeaccea 540 coccatette cetteteetg geeteecege attgggtggt agecagette aaaaacceet 600 ggaccaccct cagcagetge tagetetget tetaactetg teetgggget gttgccetgg 660 tgtgggctcc caggtgggga caggagacct gctggccagc ccccgcccac tctcctcccc 720 catccacact gtgaaacaag gacagaaaca aagggcctca qccacqccaa qacgagaaqc 780 agcagogcat actgotgtaa ctgoottgga caagcagaaa aaggotooto ttgaatgogo 840 ctgtgggccc agctacttgg gaggctgagg caggaggatc gcttgagccc tggagattga 900 ggccgcagtg agccqtgatc acqccactgc actccaqcct qqqcaacaqa qaqaqacct 960 qtctctaaaa aataagaaaa aagaaagaga gaaaaagcct tttctccacc ttqccctqtc tcaqqqaaqa aqqaactqcc cttctccccq tqqqqacctq qctqcctqct ctqacaqqta 1080 cotqtcatct goccaccatq qqcttctqqq acctqctqta goccctqcca cccactqctq 1140 cagacccacc cacteteage ttageteaaa agetgttete taacteattt etgagaataa 1200 ctgaagggt ggagttgcag ttggcccagc tgtctggacc agatggggaa acaagcccag 1260 cagggcaaga tgattggtct aaggtcgcag ccaggtgaca gctgggtcac ttctcctcc 1320 actotcacto ctocctccat ctoactto 134R

<211> 1864 <212> DNA <213> Homo sapiens <220> <221> misc feature <222> (1)...(1864) <223> n = a.t.c or g

<210> 548

<400> 548
ttttttttt tttaaaacaa tgtggtactg gtgtattgac agtaatgtcc acgaaacaga

300

atgaaaaccc	ccaaattaca	ttaggtttac	actgggagtt	agcaaaacaa	aagggcagca	120
ttaaccgaca	tacagcacgt	gggaggatgg	tggaaaagct	ggacatgact	cactggacat	180
ttcaactgaa	accacagagg	ttcttgaaaa	tgctggagaa	ttccctgatt	geettateag	240
ttacaaaccc	aaattcagaa	tcatgtgaca	gctggataca	ttcaactgta	cgtacaaata	300
atgatcaaaa	aacacaaaag	ttgggtagtg	gttaccatag	cttttactgt	agttattcat	360
taagctattc	aactgttctg	tgcagtttga	tgttttattt	tacaataaaa	agtcaaaaaa	420
aataagcaaa	aagataaact	ggaaaataag	acttacatct	catatatatg	gacaaaggac	480
caattacctc	caaacataaa	cagetectag	aaattactgc	aaagatcaac	aacccagtag	540
aaaaatgaat	gaagttccca	gaacagaaaa	cacaagtggc	ccttcaaaaa	aatgaagaga	600
ggctcagcct	cttatggtaa	gacaaagaga	caggatttta	aaaacctagg	cctcttccta	660
gagttccctt	aaatatctag	gccagatcat	ttttacttcc	tggcttagac	cctgccaagg	720
getgeecage	tactcaggtg	tttgtgtcct	tgtggactca	agtcatattg	tcctgatctt	780
ttggctgagt	acggttttct	cctccagcaa	agacaatttg	gaggatgtac	taagcatgaa	840
gegetactte	ctggccccca	tetetetteg	cacagtgttc	catcatccag	ccatgaaagc	900
acagctgagt	gatccaagag	gcagttccaa	ttgttgacta	acgtgtacct	gcctatgtga	960
gtgtgtccta	tgggaactca	ggccttagaa	tggtttcaaa	gtagtggctt	tcaaaattac	1020
tgtttgcctc	ttcaaacttc	acacctaagg	aaaatggaaa	catgcagagc	agggacacag	1080
aaggggcatt	agctggcgtg	gggtaggggc	aagagctaat	tgtgaaggaa	gaaggcctga	1140
gatcacgtag	ccatgtcgga	gaacagctgt	gatagatgaa	ctgcctcttt	gcgcgcatgt	1200
caggcagccc	caggetecag	ctgcttgagt	ttctcttgga	gtccccggag	ctggcttcga	1260
ccccagtcaa	tgcggttctg	gaggetgget	atgtctgcgg	ccagetgcag	gccatcccgg	1320
aagcttgctt	gagcetgacg	tagactgtga	ggaactagga	ttccaaacca	gttcaggggg	1380
tcctgagggg	cctcagagga	ctccggttct	ggggtcttag	tggggccctt	gegeeteege	1440
agacctgctt	cgcgaggccc	cacctcctct	ggggcgtgga	caccagetet	caccaccttg	1500
aacttetgga	gtccctcctg	ggcctcgctg	gcgtggaggc	agacctgggg	ctccatgtgg	1560
gaagcatact	gcaggggccc	taccgacttg	gcgcccatcg	cgtagcgagc	cttggcgagc	1620
gagagccagc	cctcctccac	ccgggcgttc	aacaccgttc	gtttcccctc	cagctcctcc	1680
aggtccccaa	gcagctgcag	gaccagcgaa	tccagctccg	ctcgcaggtc	aagcgccgcc	1740
			tetteettgt			1800
gacanccaat	aggcacacga	gatectecat	caaggggcgt	tcccagtctg	gggatcccca	1860
ngge						1864

<210> 549

<211> 649

<212> DNA

<213> Homo sapiens

<400>	549					
cattctgatg	ttggagcggc	cacagetgte	ttgcccctcc	tcacggccgt	gttgggtgtt	60
accgtggtca	cccgcaggga	cacggagggg	ccaggcagag	cagccctagt	tcacctcacc	120
gggagccccc	gccagaaggt	gggcacctct	gggagggagg	gactgccagg	ccttggggct	180
tectgtgetg	agtcagaget	ggaacgggag	acgcaggagc	cccgcagccg	cgggaggtgc	240
atatttgggg	ctgccaggtg	gcgccaggtc	cccttggcca	gcccccagcg	ccccttctt	300
ctgtccccag	ggcctcggct	tcacaggatg	gggctgccag	tgtcctgggc	ccctcctgcc	360
ctctgggttc	tagggtgctg	cgccctgctc	ctctcgctgt	gggcgctgtg	cacagcctgc	420
cgcaggcccg	aggacgctgt	agcccccagg	aagagggcgc	ggaggcagcg	ggcgaggctg	480
cagggcagtg	cgacggcggc	ggaagcggtg	agtgccaagc	tgtcccgggg	accagggtgg	540
ggtccgcagg	ggaccgacca	gccttcctcg	ccccagtcc	ctactgaagc	ggacccacct	600
ctgctccctc	agcaagtcgg	acaccagact	gcacgagetg	caccaqqqc		649

<210> 550 <211> 696

<211> 696

<212> DNA <213> Homo sapiens

<400× 550 ttttttttt ttaaaggitt gcatgittat ttataattac aatitacatt actccaacag 60 aggagecece ttgctatgtt ctaattetta gecattaagt cetacaaaaa taaacecaag 120 cttttacagt aacttaatca atacagaact aaagccttta tagctattag aggggtttag 180 ttaccaaggt gettattttc gacaaaatge cetgtcactc agaggacgca tgcgtatact 240 aaagttetga cecategaet catgeaacaa atgtagaeee caccetecet ceacceactg 300 ttacaacaca aacacaaaac aacqatqtac aacaqaqqqq aaatatqctc ttqqtcaact 360 gaccttgcag aaaagactgg cttgtttcca agtggatgag aacgccagtg tgtggccaga 420 gtccagcaat gactgaccgg cccaggtcag aggctggcag ggaccacaga agggccaagg 480 cgctgccggg gctcatccca ggctccaacc ccaacctgga agcttgtgga caccaggctc 540 tgtgcagcag etcegtgget agegtecagg geceetggee actaetecea aatgetteta 600 glccacceae ceetggceag ceecaacett gacateaetg tggatgeeat cagggtggte 660 tggttcactt atacaacatg atccatgggc tcgtgc 696

<210> 551 <211> 1037 <212> DNA <213> Homo sapiens <220> <221> misc_feature <222> (1)...(1037) <223> n = a,t,c or g

<400> 551 taaaaaqtga qqatcttttc ctttcttqta aqttaqaaqa aataacctct tcaqttaaac 60 cttcagtgaa ggttctttta gttttctgtt ctgctttcta aaaacataga ctctgttctt 120 tagaggaact tatgactotc atototoctg cacgagaata tgagatagag ttoatotatg 180 cyatchcacc togattogat atcacttttt chaccccaa ggaagtatcc acattgaaac 240 300 tagaccataa tatototoca ocagacaaag agotattcag ttettttoct catocccaag 360 totocatoac aaatgaaato tatoagtaco taggagagoo agaaacttto otottotgio 420 ccacaggtat tgtatataat ggctttacat ttaactagtc ttcttggaat atataactta 480 taaaqqacca tqqqccccat teteteteca ettecetect cetttqqtqt qtaaaaqtaq 540 gaatctttt ttagaagaca ttttcaaga tcctaaattg gagaaattt aggaactaat 600 aaatgacaac tgactaggca aaagattttt atgtattttt aagtactgga agtatatgaa 660 cattacattg tcaatattaa aagagggata gtattgaaat gaaaactqqa qaaaaaccaa 720 attacatigo tittaccita gicacitoto atticcicot actigicoco titticigoo 780 catgoratate tgtecettti igeactecte ceacteceat etgggetett atticaagta 840 gtcagcatag aaagcttaac agttttteec gttttccttt ctttntqecc ctctqqtttc 900 tttcattgaa aatattttag tctcttagtt gcttctcaaa attcaactta caggaagttt 960 tecceacact teetttqtea qqaaqaattt taqattaaat tatttaactt tetttqtqtq 1020 tatqtqaqcc qaqaacc 1037

<210> 552

<211> 813 <212> DNA <213> Homo sapiens

<400> 552

gccagtgggg cagcaaaggc cccttggggt aacaaaggtg ggatgtggaa ggccagggga 60 geceggggge gagagtgggg geagatggag getegggaag ateagtattg aggaecatgt 120 aggggggagg gggccgggaa gggacctggc tggggaatga gaaaacctgg ggccatcgtc 180 aacccagaga cttqqqtttq cagqtqaaqq qtatcqqqcc qtccatccct ctaqcatqct 240 totcacqact tqcatcttta cccactagac ttctqcactq acccaqqqqc tqqaqcqaat 300 cccaqaccaq ctcqqctacc tqqtactqaq tqaaqqtqca qtqctqqcqt catctqqqqa 360 cctggagaat gatgagcagg cagccagtgc catctctgag ctggtcagca cagcctgcgg 420 tttccggctg caccgcggca tgaatgtgcc cttcaagcgc ctgtctgtgg tctttggaga 480 acacacactg ctgqtqacgg tqtcaggaca gagggtqttt qtqqtgaaga ggcagaaccg 540 aggtogggag cocattgatg totgagootg coggagggog agggtoggag aageggattg 600 ggtcctgggc ctctgtgatg aggcaggcac acctgtcggt cttggcttgc tgctagaact 660 agggeettet getegeeeae eteceaeeee tacetggaeg ggeeeagget tggggaetet 720 gagetgtgtt aaggagaaca agggeaagga gaceteeett tgtgeteeet cacteectaa 780 taaacatgag totgatgtto tocaaaaaaa aaa 81.3

<210> 553 <211> 1451 <212> DNA

<213> Homo sapiens

<400> 553

ttttttttt ttgaagttca aatgtatcaa attattaaaa atgcagcatt tttcacatga 60 gctttaaaga tgtqqaaqat qqqqtacaat taaaaccatq agaqttqtqc aqqqaacaqc 120 cgtagggcct gtttgcacct tcaqatattq cctqctccca aaaattcaqa cccccaqatq 180 cagggcaaga caataagaaa gggtgagtgc aagcaaggag agceteetge taagaggetg 240 aggteecte tggtteeaag gatgggatgt cageettgae etteeggggt etgeagtgge 300 cagaggetge etgtegeece tteeteetee cettettggg caetgtggga gettetgggt 360 cotgotogaq qotqqtcccc tcaqqccqct qqqttqcaqt cotottaqqa aqqtctctct 420 ttqcccttcq tqtcctqqaa qqqqccttqc ttqqaqqcaa aqcqtcctcc actctqtcct 480 caggactcag ctgtgtggcc ttggatttct ttttgcggga cttgcgccct gcaggacact 540 ggtgttqqag ttqqagggtc ctatcctgcc caggggtgac tcccagggtt gcagggggat 600 agggtggaga agggtgctgt agcccttqca gqcqtqaagt cctttctqct ctcttagcct 660 attacattag gagtagetta cetttgggtg ccaacggtcc aggatccccc taaaatggga 720 tggggataat tcaggaatca gcctgggttg gcacaggggc ggtattcctt ggagaggcag gactcacaca cacccatcca gatcactgta getteteect taggaageet ctaggacate 840 ccccatgtta gagtccacat cagcaaaget getetgeeet tggctaettt cacttggget 900 acctgccttg ggctacttec actagctgca actctgggac qcatgggtgg ggagggatgt 960 gaccetcagg aacaqtgtgq teettggaqq gtetagacaq accetgagca teaccaccec 1020 agttattgtg accccacgtt tocacccatc agcctcctgg ggtctctgcc tgtgtgaaca 1080 gtagggccca acctggaacc agatggtacg gccatgccgg tcctgcaggg agctcatgcc 1140 tggcatgcca tagcagcgca gccaggctcg aaaggcagca aagtcctcct ccccgctctc 1200 tgaccegtag cetttgcccc ctgtgggaca gaggaacagg cagagatcag agggcagget 1260 caggttggga ggagtgggga gcctggttag acctggccca qacctcaqct acacaagctg 1320 atggactgag teaggggeea caeteteeet eetetggtga tgtgacetea getggtttet 1380 teccaetegg ceatgggttt eccateetgg agtgggatta agaateettg teetggeeet 1440 gtgcagtggc c 1451

<210> 554 <211> 1663 <212> DNA <213> Homo sapiens

<400> 554 ctctggccac tgaaaaactt ctcactataa agcatgtatt caaggattac caatgcaaat 60 gggcagcaat taacctggag accccatgcc tatggcagtc tcaagaacgg aactagagat 120 gctatgtttg aaaatcgacg catgattaaa gcgatacttc tggaagcatg cagggcaggc 180 ggeceggeca tgacgeacag actetgtaca gecetgeaga ceteagecae catgetaaca 240 ggcggacact tttaccatgc aatcaagggc acgggatcag ctgctttggg aagacttatt 300 360 tocaccoct coaqtetete aggetggage geagtggegt gateteaact cactgeaace 420 totacctcct aggttcaagc gattcttctq cctcagcctc ctgagtatgt gagactacag 480 gcacgcacca ccacgcccag ctaatgtttg tatttttagc agagatggag tttcaccata ttggccaggc tggtctcgaa ctcccgatct cgtgatctgc ctgcctgggc ctcccaaaga 540 getgggatta caggegtgag ceaetgegee cageeaggaa gaetttette atggeaaaca 600 gtqqqttctt tcaggggaca tttctgtaat gtacaaaaga acctgcaaaa acaaaagcac 660 ctagggagac agaagactgg gaaaggccca tgaagggcag agctctctca gtaatggagg 720 aaactaatag gactgetget aatggageee caggtgagee etgggattge aaggecaceg 780 ctggcacagg caaccatgct tgtgtggagg tgcaggcgtg agcccttctg caagggggct 840 ctctgccagc acccatgcag ggctcagaag ggggcctggc tgtggatctt gctgggttcc 900 agcagcacag aggcccactg gcctctgacg caacatacgc ctggggaagt gtgcaggccc 960 aggggagaga gaactgccaa gagtetggae teacggtagt ettcagacte gtccaggate 1020 teggacetga tgateteete gateacgtee teeagggtga ceaggeceag gacetegtag 1080 aaggggtege etteaceete gttgtteace ttetgeacga tggceaggtg ggaetteeet 1140 gtgggggag gacactcatg gaacagettg etgggcecce cecagtttga tteatetece 1200 ctggtatagg cccaccaaaa ggacacggct aacgttcatg ctcctacaac gtgccaggca 1260 cagagecaca etettteta ggtttttaet taagaeteee agegtgatta tgagaactgg 1320 cottattttc acacaggttg aaaatgaagc agtgggetca tgcccatctg cacaaggecc 1380 cccaggcaga getggcagag etgggateca getecaggte egtgcacete catgacatgg atgcagttta gacaaggatg cctccctcca gtggagaaca caaatgcctc acacatcage cagcetgeac atgeaggeta acaagggeac tgaetetgga aacacagget etcetgegae 1560 agtecacacg gggcagetga gtggggccac ecageetgac tgteettggg aggattteet 1620 aagtettttt ettettaaag taaatatata tgetgteeat eet 1663

<210> 555 <211> 1040 <212> DNA <213> Homo sapiens

-

c400> 555
geatsgaat ogseacgag agetststea ceaetstsgg tecetsgatts thecteaec 60
etsteogtsa estagattsg tsetsgaace eteatectst etesgatts tsseascass 120
gastsgaas ageatteca accetsgas stocteaes etscetst categasts 23
steggegests thetsstsca eccecastsga stocteaes etsceaets categasas 24
tsgastagsg cotsgaste sgassassas stocteaes etscaeets categasas 24
tsgatagsg cotsgassat sgassassas stocteaes 25
catettecca agsataace etaasgacas ettesgat sgassassas sgasaste 36
acttetecca agsataace etaasgacas cotscaeca tsgatsgats 24
tsgatagsg caaetsgass sgassassas sgassaste 36
acttetecca agsataace etaasgacas cotscaeca tsgatsgats 32
acttetecca agsataace etaasgacas 25
acttetecca agsataace etaasgacas 25
acttetecca agsataace etaasgacas 25
acttetecca 25
actt

gateteeste	tgtgtccctc	tatototott	tatatagatt	tasttatata		
						480
tggcttcggt	tgtgtctctc	cgtgtgacta	ttttgttctc	teteteeete	tettetetgt	540
	catatctccc					600
tctcaccctg	tatctctctg	ccaggetetg	teteteggte	tctgtctcac	ctgtgccttc	660
tccctactga	acacacgcac	gggatgggcc	tggggggacc	ctgagaaaag	gaagggettt	720
ggetgggege	ggtggctcac	acctgtaatc	ccagcacttt	gggaggccaa	ggcaggtaga	780
tcacctgagg	tcaggagttc	gagaccagec	tggctaacat	ggtgaaaccc	cgtctctact	840
aaaaatacaa	aaaaaagta	gccaggcatg	gtggcgcatg	cctgtagtcc	cagttactca	900
ggagactagg	gcaggagaat	tgcttgaacc	tgggaggcaa	aggttgcagt	gagccgagat	960
ccgtgccact	gcactccagc	ctgggtgaca	gagtgagact	ccgcctcaaa	aaagaaaaaa	1020
aaaaagtct	cgacggtcga				-	1040

<210> 556 <2115 1331

<212> DNA <213> Homo sapiens

<400> 556 tttttttttt ttcatacaca agccggtgat actttattat ataagagagt tgtcaaaagg

```
acagtitcat tictgittca gaatccccac attccagtga tccatctgit gacacaatta
                                                                    120
acataaacta tttgctgata tttactgagt gcttgcaatg tatcagagtc attaaataag
                                                                   180
atgeaacttc tactgtgaaa actggaatet teattaggac acagacttag aaaaggccca
                                                                    240
gtttcaagga ttctgacttg cacagactga gcactcccat ttccagaagt tcgaatacct
                                                                    300
cotttettat etegggaatg tecateatte teeteaactt etgatetete eagtteeagt
                                                                    360
caaaaaccag aaattttaag gggctcaaat taaggccacc ttgtttaaca agttctttaa
                                                                    420
tteteceegg agtteetaca eccaggtgea ceacaegett etecageaac tttacetgeg
                                                                    480
cotggacett tatgtgettt geaaataatt ttataaettt geegteteet etgaatgetg
                                                                    540
tcatcgacct aatgagctcc agggctcgga cggccgagct gcagatgatc agcatcagga
                                                                    600
cogatttett eteactgtgg ttetteetaa gttttaccca ettaggacaa atttettta
                                                                    660
ggtatgagga aagactgtga gtcaaatcat tggccttgag gaaacaggag tctggcaggt
                                                                    720
toagttotto taattoaato accaagogto tgotgotata atagtootto atcagettot
                                                                    780
gtaggtette aggtaaccet ggttttggtt etgattttge aagaacatea gtaattttet
                                                                    840
tetttettet titeetggte tiggtggtat tetettitet tieettiggt igtateaaaa
                                                                    900
aacattettt aggetgtttg gttttetetg aaggtacagg aactggaact gteteetget
                                                                    960
geateactte tgtgteteet teteetteae catetgatge ttetgggetg etgeetgete
                                                                   1020
cagtoggetg gttctcccac cactogtete cgagatogte tgccatttca gctcaggtet
                                                                   1080
cgacgtgggc agaacatcac gggtaggcga ccagctgcgg agaatcacgt tgtctcaaag
                                                                   1140
ccaggeggcc ggcgtagcta cacgeggagc tecegetaga cactgtegec tecegecege
                                                                   1200
ggcgatgacg teacacetet geccegeete teeggcagee geteccagae tegtegcagt
                                                                   1260
ttccacacag gegeegacag geagaageag tttggaaaeg caacataaat ecceccaaag 1320
atttatactt q
                                                                   1331
```

60

<210> 557

<211> 971

<212> DNA

<213> Homo sapiens

tttttttt	ttgatctaag	aaactttatt	gctcagaacc	ttccctccct	gggcaatgga	60
aagagctttg	gagaccagcc	catggggaca	gagtcagagg	cactgggtgt	aaaaaagagc	120
gagcgtgtgg	cacatttggt	ccattgtcat	gtgcgggtat	ggcaggagga	gggggtaatc	180
tagaagcccc	acatctaggg	ccttctaggg	acccagatat	geceettag	gcaaggctca	240
catgccaaag	caaagcagat	gaggtcagcc	tggcttgggt	tgagggctca	gtgcctctta	300
gccttgccct	ggggttcttg	gaccttccgg	aaactgagcc	acatcaggct	cacgttgata	360
gcataggtgg	tgatacaaac	aatgcagaaa	tcatagagca	cgaagaacag	gatccaggcc	420
aggtagacag	aaccagcgag	agacaccagg	gageteagea	gcatcaggac	agaggcccag	480
cgtgtccgca	ggcaacctaa	caatagctgt	agtgtgtaga	agatgcaacc	gaatatgctg	540
ttggattgat	tgaggatgct	gtcctgtccc	agcacatgct	ccaccagccc	gaaacccctg	600
ccccacctgg	aggagaagac	gcgcgaacag	ctgatggcgg	tgcccacgtc	gcagagcgcg	660
cggtaatccc	ggtcccgggc	gegegeegee	ttcacgtgca	gcgcgtagag	cgagagcact	720
aagcccgtca	ggcaaagagc	gagccgcacc	cagccagggc	tccccaggt	gctgcccatt	780
atctccaggt	tccgcccgag	gcgcccgcgg	agaaaaccag	ccacggagca	ggggccgggc	840
ggcgaatggc	cgcgcccctc	ctggccctct	gactcggcga	ttggccggcc	gtgctcgcac	900
tccacgaccc	aaatggctgt	tccagggcgc	tagtcaagcg	ggcgagttag	gaaaacagcg	960
aagaatgccg	g					971

<210> 558 <211> 1575

<212> DNA

<213> Homo sapiens

<400> 558

ggaqtecece gegeeeceeg egtteegeee ggeeatgget geggtggege tgatgeeaee 60 quequetquetq etquetque tqttqqqqtu quoqueque quetcuqqqq eqtcqqcqq 120 eqatecette qeececaqe teqqqqacae qeaqaactqe caqetqeqqt qeeqeqaceq 180 cgacctcggc ccgcagccct cgcaggcggg gctggagggc gcctccgagt ctccctatga 240 cagageogtt etgateageg ettgegageg tggetgeege etetteteea tetgeegatt 300 tqtqqccaqa aqctccaaqc ccaatqccac ccaaactqaq tqtqaaqcaq cctqcqtqqa 360 agectatgtg aaggaggeag ageageagge etgtageeae ggetgetgga geeageeege 420 ggagcetgag ceggageaga agagaaaggt cetggagget ceaagtgggg ceeteteeet 480 cttggacttg ttttccaccc tctgcaatga ccttgtcaac tcagcccagg gatttgtctc 540 ctccacctgg acatactact tgcagactga caatgggaaa gtggtggtgt ttcagactca 600 gcccatagtg gagagcctcg gcttccaggg gggccgtctg cagcgcgtgg aggtqacctq 660 gegaggetee caccetgaag ceetggaggt geacgfggae cetgtaggee ceetggacaa 720 ggtgaggaag gccaagatcc gagtcaagac cagcagcaag gccaaggtgg agtctgaaga 780 gccacaggac aatgacttcc tcagttgcat gtcccggcgc tcgggtctgc ctcgctggat 840 cetggcetge tgcctcttcc tctccgtgct ggtgatgctg tggctgagct gctccaccct 900 ggtgaccgcg cctggccagc acctcaagtt ccagcctctg accctggagc agcacaaggg 960 cttcatgatg gagcccgatt ggcccctgta cccgccgccg tcccacgcct gtgaggacag 1020 cctaccaccc tacaagctga agctggacct gaccaagctg taggcctcca ctggccccat 1080 cactgocaac tgcaqqqqqc ccctcqqqcc tcacttqccc tqaqcccaqq qaqtccaaqq 1140 geagggtqqg tecaqeettq ageceeteca cececaaate etteetete teccaqaeee 1200 accepttgee ceaeggagte etggggaege agtgeeccag etgggaagag ggegggateg 1260 ggcactggtt cotecttgtc cocgctttct tgggggcttg ctactttttg tottctattg 1320 tgtggctttc tgagtatttg aaccccagtc ctgtgtcacc ttcctttttc cttctctgtc 1380 ccctctctgc gggggggcgc tgaggctgag gggqaqctgc gtcttgctag ggcttccccc ttetececat eceggtetee agagacecag ettetgagag acagggtgtg ggcateteca 1500 tgcccctata aagcgtgcct ggggcttgtc tggggcttgqq qaggaataaa ccatqtatat 1560 aaaagaaaaa aaaaa 1575

<5TT0>	559	
<211>	820	
<212>	DNA	
<213>	Homo	sapien

<400> 559

ctttcccgag cttggaactt cgttatccgc gatgcgtttc ctggcagcta cattcctgct 60 cetggegete ageaccgetg ceeaggeega accggtgeag tteaaggaet geggttetgt 120 ggatggagtt ataaaggaag tgaatgtgag cecatgeece acceaaccet gecagetgag 180 caaaggacag tottacagcg toaatgtcac ottcaccage aatattcagt ctaaaagcag 240 caaggoogtg gtgcatggca tootgatggg cgtcccagtt ccctttccca ttcctgagcc 300 tgatggttgt aagagtggaa ttaactgccc tatccaaaaa gacaagacct atagctacct 360 gaataaacta ccagtgaaaa gcgaatatcc ctctataaaa ctggtggtgg agtggcaact 420 teaggatgae aaaaaccaaa gtetettetg etgggaaate eeagtacaga tegtttetea 480 tetetaagtg ceteattgag tteggtgeat etggecaatg agtetgetga gaetettgae 540 agraceteca getetgetge tteaacaaca gtgaettget etecaatggt atceaqtgat 600 tegttgaaga ggaggtgete tgtageagaa actgagetee gggtggetgg tteteagtgg 660 ttgtctcatg tctctttttc tgtcttaggt ggtttcatta aatqcaqcac ttqqttaqca 720 gatgtttaat tttttttaa caacattaac ttgtggcctc tttctacacc tggaaattta 780 ctcttgaata aataaaaact cgtttgtctt gtcttctgcc 820

<210> 560 <211> 1601 <212> DNA

<213> Homo sapiens

<400> 560

ttttttttt ttagggatge attttgaata tttattgtee ttgtttttaa cataatttge 60 aaatttacat aattataatg getgtgtttg acaactgget tgcaacaaaa ttettgaaaa 120 ttgaataatt ggcccacctg ggctgggatg agccagctgg atcacaccgt tgccccctca 180 geetetagga ggeeteagga ttatggegte catettatga tattggeega aaggagaeag 240 tettggaggt getgettaet gttgaactte ettttggaat gtatgggaga aggeagggaa 300 aggaatettt aggeagaetg ceatecaggg aetgetatte totteaetga gatteagetg 360 tgaacatotg ttotttotto otottotqto tactqcatqc aqqccqqqaa qctqaqcqtt 420 agtcamaggt acaggaaggg ammaggaag agggcamaggc ccatccccc agmamaggaag 480 ggetetgatg cagagggage aggagetgag gtggagaegg ecaetgeete teteaccete 540 tgttccatcc ctctgctcaa gaaaaccagg cttagcagag tgggacagac gctttttatt 600 ggtctggctg gcgtgcctag tggaaagctc aggcagagct tcctatcttg ccctggctcc 660 catctteeet eteetgggag tteateacae ateeegagag ggaagagtgt eetgggeaga 720 ggtggcaggc aaagccgggt aaaaactcca gggctgggaa gcaaatgggg ctcagggtga tgcagaaaat gtgatgttgc caggccatcc aaataaagca tccatcgggg cagaggagaa 840 getgttteee tgeagaeact cetetgeece caccaggaat gggaggggea ggaggaagag 900 cttcccagag aggeteceta etgggecett egtgecatea geateteceg gatgttgtee 960 tragetteet taacgetteg etccaggtag gaetttttet gttctagtte tttaattttt 1020 tettetgeta tettetgett etetaacage tgaetgtgaa ttgetteett ggaetgaaga 1080 ataaacattc ttcctacacc ttcatacatg ttagtctcat ctaccaaagt catgatctct 7740 gtatctgtaa gatgtgcatg ctttttcgtt ctgtttagct gttcaatctg tatgtctgcg 1200 agetteacet tetgttgagt gteaataact ttggettgaa getetgtgaa ggetatgaaa 1260 gtgagtccct gaagcctcca aacgcaacga aatgtctctg gagctcagaa agactggaca agecegagae aggecegeag acttaceega eccagaeeaa eeggeteeta eecageaaga 1380 geogetegee ecceaceceg tttatggaga eccagtgagg cettaggaet etggqaaace 1440 attocctagt coactggace etectteett etgeaagget egtgeeteae ttgatattet 1500

tgtetatagt ecceteagee teeaaaaaga agaceteege etgeeaaaga ecctetttta 1560 ecttetteag etetagatee aegggggegg ecactegtge e 1601

<210> 561
<211> 797
<212> DNA
<213> Homo sapiens
<220>
<2211> misc_feature
<222> (1)...(797)
<223> n = a,t,c or g

<400> 561 ctcactcact cctgcttggc acgagggtcc gagatgcttc tagcaagatc cagggcgagt 60 acacgctgac cctcaggaaa ggcgggaaca ataagctgag cagggtcttc caccgagatg 120 ggcactatgg cttctcagag ccactcacct tctgctccgt tgtggacctc atcaatcact 180 accgccacga gtctctggcc cagtacaatg ccaagctgga cacacggctc ctctaccctg 240 tgtccaaata ccagcaggtc cgtgctggcc tgggagccag ggagggtagc acctggctgg 300 ccccaggect cagtttecta ggtagacccg accaggetat geatetecec teattecgce 360 acgtatctcc aggaccagat tgtcaaggag gacagegtgg aggcagtggg cgcccagctt 420 aaggtctatc accagcagta ccaggacaag agccgcgagt atgaccagct ttatgaagag 480 tacacacgga cctcccagga gctgcagatg aagcgtactg caattgaggc cttcaatgag 540 actatcaaga totttgaaga goagggocag actoaagaga aatgcagcaa ggaatacotg 600 gagogottoc ggogtgaggg caaccgacga aagagatgca aaggatcctg ctgaactccg 660 ageggetcaa gteeegeatt geeegagate catgagagee ngeaeegaag etgggageag 720 cagctgctgg tgcccagggc ttcggacaac aagagagatt cgacaagccg cattgaacaa 780 gcctcaagcc ggacctc 797

<210> 562 <211> 1772 <212> DNA <213> Homo sapiens

<400> 562 ttttttttt ttacatetga atgtatttta atataaaaat aacagettte eeccaattet 60 cgctctagga aaatgtgcta tgctcacctt ccctctaccc ctgtcccatc aggcccagag 120 ccaaggccat agggctgctg aatacacatg tgagggggcc gaggggaaga caacagtacc 180 aggagggcag geagggcace eccaggetgg ceagtggagg ggtgggggta tegateeege 240 cgggggetgg cttggttgct ggtgccctga gcccttetet gcccgcctgg gtgttgcctt 300 cactgatgga ggtaggcgtc cagecagatg tcaccagact tcttcaggga cctgacgatg 360 tocaccagog oggtgaggaa gggottcact togtagotga ggcogtgott ggcacacago 420 gacttgacca geggggccac ceggetgtag ttgtgteteg geateetggg gaagaggtgg 480 tgetegatet ggaagttgag gtgceegetg aaccagttgg tgaaaagtga gggeteeacg 540 ttgcaggtgg ctgccagctg agagctgacc cagtcccggt gcttctcgtg gccgatctcc 600 ttggggatgt ggttcatctg tgtgatccac acgaaccagt ggctttccag gaccctgaca 660 gcaacaaaga agagcagcac cccagggacg ccgtagaagg ggaggtagga taagaagaag 720 egggeataga agetggegge ecagageaaa teegcecaet geatgeacae cageatgtae 780

gccagatttt	ccacttcaaa	gttcaccagg	gtgagcagcg	gegggeegat	caggaagaag	840
tacaggtgct	gctggttgta	gggtaggtat	ctgcgtttct	tettgecata	ctcgacggat	900
gaeteececa	ggaggaagac	gggcgccacc	gtcacgtctg	ggtctttgtg	gaagatgttg	960
		gtggcggaag				1020
		ggccacgtgg				1080
tggcccaggt	catgctgcag	acaccaggac	tgagcctgag	agatggccag	gatgaaggcg	1140
gccagggcac	tgggcaccca	gccaggaccc	aggaggtaga	taaggagcca	ggccagcacc	1200
		cagtaggaaa				1260
ttcatgtcct	cggctgcctg	gtgcagggct	cggaagtcct	cgaccagetg	cgcattcagg	1320
		ttccggagcc				1380
ttgcgcacaa	aattgagatc	ttgatggaag	gcacggaagg	catccgtggc	gtcctcagcg	1440
ccgtggtggc	cgatgaggcg	getgeeect	gggtgccgct	gtgcccagcg	gctgatgtcg	1500
		cagccacttg				1560
tcccagcaga	aggtgggcag	cggtgccccc	ggctgcgcgg	gtccctcccg	cggtcccggc	1620
tccccgacgc	cgcccatgct	gcacgcacga	gtcctgggga	tcccaggcgg	tggccgaggt	1680
ccgagcaaga	ccccgaggga	agcgaagagc	gatacaggga	geogeeteeg	ccgccgcccg	1740
ctgctccggc	cccgccctgc	cgccgcggcc	gc			1772

<210> 563

<211> 521 <212> DNA

<213> Homo sapiens

<400> 563 ttttttttt ttggaattac aaagctactt ttaatacttt ggggtgagcc ccacaggaat aaaaaacact gggaaggggt aaccccctca cccccgggag tggcccaggg ggagagaggc 120 tacctgaggg gaaggaagca caaaagggac ccgctgcaga ctcagggcaa agggaatgcc 180 ateggtgetg ggacctgtga gcactacagg aggaaacgcg agegtggtgg gactggetec 240 aggcacacag gcgaagggca agagggttgg acacgaagcc acaaagctac ttgggttcct 300 cottettete gtttgeettt ttetgettet getgeatgat eteegagtee etetgettge 360 gggcggcagc agaaagcccg tcatctcggc gctttccctt aaccgagtcg ctctgctttt 420 teatattett etggegggeg ageteaeget ggttaeegeg ggteatggeg aeggeagegg 480 ctccaacctg cctccgttac gtcccctcgt tccctcgtgc c 521

<210> 564 <211> 840

<211> 040

<213> Homo sapiens

<400> 564 atccaatacc ggagtgactt ggaactccat tctatcacta tgaagaaaag tggtgttctt 60 ttcctcttgg gcatcatctt gctggttctg attggagtgc aaggaacccc agtagtgaga 120 aagggteget gtteetgeat cageaceaac caagggacta tecacetaca ateettgaaa 180 gacettaaac aatttgeeec aageeettee tgegagaaaa ttgaaateat tgetacactg 240 aagaatggag ttcaaacatg tctaaaccca gattcagcag atgtgaagga actgattaaa 300 aagtgggaga aacaggtcag ccaaaagaaa aagcaaaaga atgggaaaaa acatcaaaaa 360 aagaaagttc tgaaagttcg aaaatctcaa cgttctcgtc aaaagaagac tacataagag 420 accacttcac caataagtat tetgtgttaa aaatgtteta ttttaattat accgetatea 480

ttccaaagga	ggatggcata	taatacaaag	gcttattaat	ttgactagaa	aatttaaaac	540
attactctga	aattgtaact	aaagttagaa	agttgatttt	aagaatccaa	acgttaagaa	600
ttgttaaagg	ctatgattgt	ctttgttctt	ctaccaccca	ccagttgaat	ttcatcatgc	660
ttaaggccat	gattttagca	atacccatgt	ctacacagat	gttcacccaa	ccacatccca	720
ctcacaacag	ctgcctggaa	gagcagccct	aggcttccac	gtactgcagc	ctccagagag	780
tatctgaggc	acatgtcagc	aagtcctaag	cctgttagca	tgctggtgag	ccaagcagtt	840

<210> 565

<211> 4345 <212> DNA

<213> Homo sapiens

<400> 565

			cgcggctgct			60
			ggccgttttc			120
			aggagettge			180
			caggccgtgg			240
agtcttggga	aacaggaaaa	aattcctaac	aaaatgtcag	cttttcgaaa	tcattgtcca	300
			gaagatttga			360
			ctttgggcat			420
			cacagcacca			480
cattatctaa	ctgtgaacct	taccactctt	cgagtatggt	gttatgcttg	cagcaaagaa	540
gtatttttgg	ataggaaatt	aggaactcag	ccttcattgc	ctcatgtaag	acaacctcac	600
caaatacaag	aaaacagtgt	ccaggatttt	aaaataccca	gtaatacaac	attaaaaact	660
cctctggttg	ccgtatttga	tgatctggat	atagaagcgg	atgaagaaga	tgaacttagg	720
gccagaggtc	ttacaggttt	gaaaaatatt	ggaaatactt	gttacatgaa	tgcagctttg	780
caggetettt	ctaattgccc	acctttgaca	cagttttttq	ttgattgtgg	aggactagct	840
cgaacagata	agaaacctgc	catttgtaaa	agttatctca	aactaatgac	agagctgtgg	900
tataaaagca	ggccaggatc	tgttgtgcct	actactctgt	ttcaaggaat	taaaactgta	960
aatccaacat	ttcgggggta	ttctcagcag	gatgctcaag	aattccttcg	atgtttaatg	1020
gatttgcttc	atgaagaatt	gaaagagcaa	gtcatggaag	tagaagaaga	tccgcaaacc	1080
ataaccactg	aggagacaat	ggaagaagac	aagagccagt	cggatgtaga	ttttcagtct	1140
tgtgaatctt	gtagcaacag	tgatagagca	gaaaatgaaa	atggctctag	atgettttet	1200
gaagataata	atgaaacaac	aatgttaatt	caggatgatg	aaaacaattc	agaaatgtca	1260
aaggattggc	aaaaagagaa	gatgtgcaat	aagattaata	aagtaaattc	tgaaggcgaa	1320
tttgataaag	atagagactc	tatatctgaa	acagtcgact	taaacaacca	ggaaactgtc	1380
aaagtgcaaa	tacacagcag	agcttcagaa	tatatcactg	atgtccattc	gaatgacctg	1440
tctacaccac	agatecttee	atcaaatgaa	ggtgttaatc	cacgtttatc	ggcaagccct	1500
cctaaatcag	gcaatttgtg	gccaggattg	gcaccaccac	acaaaaaagc	tcagtctgca	1560
tctccaaaga	gaaaaaaaca	gcacaagaaa	tacagaagtg	ttatttcaga	catatttgat	1620
ggaacaatca	ttagttcagt	gcagtgtctg	acttgtgaca	gggtgtctgt	aaccctcgag	1680
acctttcaag	atctgtcctt	gccaattcct	ggcaaggaag	accttgctaa	gctgcattca	1740
tcaagtcatc	caacttctat	agtcaaagca	ggatcatgtg	gcgaagcata	tgctccacaa	1800
gggtggatag	ctttttcat	ggaatatgtg	aagaggtttg	ttgtctcatg	tgtccctagc	1860
tggttttggg	gtccagtagt	aaccttgcaa	gattgtcttg	ctgccttctt	tgccagagat	1920
gaactaaaag	gtgacaatat	gtacagttgt	gaaaaatgca	aaaagctgag	aaatggagtg	1980
aagttttgta	aagtacaaaa	ctttcctgag	attttgtgca	tecacettaa	aagattcaga	2040
			acccatgttt			2100
gatetteage	catttcttgc	taaggatagt	ccagctcaaa	ttgtgacata	tgatcttctg	2160
			agtggacact			2220
			gatcagagtg			2280
			ttctatagga			2340
			aacataatgg			2400
			aagacctttg			2460
			gttcctccaa			2520
			tgggataacc			2580
	_					

```
ggaccagetg teaaccatet gtacatttgt catacttgcc aaattgaggc ggagaaatt
 qaaaaaaqaa qaaaaactga attqqaaatt tttattcqqc ttaacaqaqc qttccaaaaa
                                                                     2700
 gaggactete cagetacttt ttattgcate agtatgcagt ggtttagaga atgggaaagt
                                                                     2760
 tttgtgaagg gtaaagatgg agateeteea ggteetattg acaatactaa gattgcagte
                                                                     2820
 actaaatgtg gtaatgtgat gcttaggcaa ggagcagatt ctggccagat ttctgaagaa
                                                                     2880
 acatqqaatt ttctqcagtc tatttatggt qgagqgcctg aagttatcct gcgacctccq
                                                                     2940
 gttgttcatg ttgatccaga tatacttcaa gcaqaaqaaa aaattqaaqt aqaaactcqq
                                                                     3000
 tetttgtaat ttttaggatg tagagagtte taatgaggaa teatttteat gtgeeetgae
                                                                     3060
 atgtacacat gogaaaacat tootaaaago gtgtttattt gotttatttt ttttcatcat
                                                                     3120
 ttatcccatt tatttcttct tagtgggcat tatggaagaa tatattaaaa tgtgtaatat
                                                                     3180
 accacaggtt qqtatattta gttttaaata cttaccataa agtctttcag tgtaattttt
                                                                     3240
 ttttgagaca gagtettget ttgteaccea ggetggagtg etgtggtqtt aceteaqete
                                                                     3300
 actgcagect ceaecteetg ggttcaageg atteteetge etcagectet egagtagetg
                                                                     3360
 ggattacagg cacctgccac catgcccqgc taatttttqt attttaqtaq aqatqqqqtt
                                                                     3420
 teaccatgtt ggccaggeta gteteaaact cetgacetea ggtgatecac ceacctegge
                                                                     3480
 ctcccaaagt gctgggatta caggtgtgag ccacagegec tggcccagtg taatattttt
                                                                     3540
 gaaagaggag ggacaattgt gaaatcagta ggttatcttt aatctttaca ctacatgcag
                                                                     3600
 atocatagta tecttigtag tgttgtaaat acttitgett tgaaaactti ticattgtee
                                                                     3660
 taaatcaccc tgactctgac cagtctttca gttctccaaa agcccaattt aattgtatag
                                                                     3720
 ttttgtcatg gcttcatata ataaagagcc tattttaagt tgaaagtagt agtcagaaaa
                                                                     3780
 ttgttaattt cctaaagetc aggaaactag ggtgtcactt tttttgcact gcagcatata
                                                                     3840
 cactaactag cttattaaaa tttacaaaat gtctttttga atgtatcaag gatatattta
                                                                     3900
 gtttgagtgg aatttgtcag cagatatcag taacttattg cogcttatat tgtacaatgt
                                                                     3960
 taaacttcaa ttcctqtaac ctqqttaqta ttaatqtcaq tqactaaaaa acttaqaqtt
                                                                     4020
 agtittaggg cactititat tittgagagca tgaagtgtgg aatgtgtcac tacgattgtt
                                                                     4080
 gataaagctg aggccacttg caacttgatt ttttaaatga aatagataaa gtctttttga
                                                                     4140
 ataatatagt atgcactgct atttgcttga ttatgtaatg tcaaaagttt aactatattc
                                                                     4200
 caagtacaaa aacatactog attacattga ggatgttgaa tagcattcat gatggctttg
                                                                    4260
ttttggtttg gggcagctgt caccagctaa agcaatgttg ttaaaattag ctcaataaaa
                                                                     4320
 atgtctttaa aatgcaaaaa aaaaa
                                                                     4345
```

```
<210> 566
<211> 984
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(984)
<223> n = a,t,c or g
```

<400> 566

gtcqtgaggc qqgccttcqg gctqnqctcq ccqtcgqctg ccqqqqqqtt qgcctqqqtq 60 tcattggctc tgggaagegg cagcagaggc agggaccact eggggtctgg tgtcggcaca 120 gccatggcgg gcgcgttggt gcggaaagcg gcggactatg tccgaagcaa ggatttccgg 180 gactacctca tgagtacgca cttctggggc ccagtagcca actggggtct tcccattgct 240 gccatcaatg atatgaaaaa gtctccagag attatcagtg ggcggatgac atttgccctc 300 tgttgctatt ctttgacatt catgagattt gcctacaagg tacagcctcg gaactggctt 360 etgtttgcat gecaegeaac aaatgaagta geccagetea tecagggagg geggettate 420 aaacacgaga tgactaaaac ggcatctgca taacaatgga aaaggaagaa caaggtcttg 480 540 aagggacage attgccaget getgetgagt cacagattte attataaata geeteectaa ggaaaataca ctgaatgcta tttttactaa ccattctatt tttatagaaa tagctgagag 500 tttctaaacc aactctctqc tqccttacaa qtattaaata ttttacttct ttccataaaq 660 agtageteaa aatatgeaat taatttaata etttetgatg atggttttat etgeagtaat 720 atgtatatca tetattagaa tttaettaat gaaaaactga agagaacaaa atttgtaacc 780 actagcactt aagtactcct gattettaac attqtettta atgaccacaa qacaaccaac 840

					gtgtatttcc	900
atgcagtgta	tatattgaga	tgctgtaact	taatggcaat	aaatgattta	aatatttgtt	960
aaatgagtat	gattaaaaaa	aaaa				984

<210> 567 <211> 1775

<212> DNA <213> Homo sapiens

<400> 567 60 qtccqqqtcc qctqcctqqc qctqcqgqcg gcgggccatg gtggtttgga ttgagccggg cccggccggg gcgccgagtc ggagggggtg gcagtgagcg gcggcagagg ctacggggct 120 eggtttgget gaetggggag teggeaggeg geaggaacea tgegaggeea geggageetg 180 etgetgggee eggeeegeet etgeeteege eteettetge tgetgggtta caggegeege 240 tgtccacctc tactccgggg tctagtacag cgctggcgct acggcaaggt ctgcctgcgc 300 360 tecetgetet acaacteett tgggggcagt gacaccgetg ttgatgetge etttgageet 420 gtotactggc tggtagacaa cgtgatccgc tggtttggag tggtgttcgt ggtcctggtg atogtqctqa caggetecat tgtagetate geetacetgt gtgteetgee teteateete 480 cgaacctact cagtgccacg actotgctgg catttcttct atagccactg gaatctgate 540 ctgattgtct tccactacta ccaggccatc accactccgc ctgggtaccc accccagggc 600 660 aggaatgata togocacogt otocatotgt aagaagtgca tttaccccaa gccagcccga acacaccact quagrature caacaqqtqt gtgctqaaga tggatcacca ctgcccctgg 720 ctasacsatt gtgtgggcca ctataaccat cggtacttct tctctttctg ctttttcatg 780 actotggget gtgtctactg cagctatgga agttgggacc ttttccggga ggcttatgct 840 gecattgaga aaatgaaaca getegacaag aacaaactae aggeggttge caaccagact 900 960 tatcaccaga coccaccacc caccttotoc tttcqaqaaa qqatqactca caagagtott gtetacetet ggtteetgtg eagttetgtg geacttgeee tgggtgeeet aactgtatgg 1020 catgotgtto toatcagtog aggtgagact agcatogaaa ggcacatoaa caagaaggag 1080 agacgtcggc tacaggccaa gggcagagta tttaggaatc cttacaacta cggctgcttg 1140 gacaactgga aggtatteet gggtgtggat acaggaagge actggettac tegggtgete 1200 ttaccttcta gtcacttgcc ccatgggaat ggaatgagct gggagccccc tccctgggtg 1260 actgeteact cagestetgt gatggcagtg tgagetggas tgtgtcages acgastcgag 1320 cactcattet getecetatg ttatttcaag ggcetecaag ggcagetttt etcagaatee 1380 ttgatcaaaa agagccagtg ggcctgcctt agggtaccat gcaggacaat tcaaggacca 1440 1500 gcctttttac cactgcagaa gaaagacaca atgtggagaa atcttaggac tgacatccct 1560 ttactcaggc aaacagaagt tccaacccca gactaggggt caggcagcta gctacctacc 1620 ttgcccagtg ctgacccgga cctcctccag gatacagcac tggagttggc caccacctct totacttgct gtctgaaaaa acacctgact agtacagctg agatcttggc ttctcaacag 1680

<210> 568 <211> 1569

<211> 130.

<ZIZ> DNA

<213> Homo sapiens

gcacaaataa aggtattega tttttaaaaa aaaaa

<400> 568
ateaegtqqa egetaeteqe tatteeeqqe etqttqqett etteegeget ggagtateea

ggcaaagata ccaggcctgc tgctgaggtc actgccactt ctcacatgct gcttaaggga

1740 1775

gataggcgac	acgccggcgg	gcggctgagg	cgggaatggc	tgctgtactg	cagcgcgtcg	120
ageggetgte	caatcgagtc	gtgcgtgtgt	tgggctgtaa	cccgggtccc	atgaccctcc	180
aaggcaccaa	cacctaccta	gtggggaccg	gccccaggag	aatcctcatt	gacactggag	240
aaccagcaat	tccagaatac	atcagctgtt	taaagcaggc	tctaactgaa	tttaacacag	300
caatccagga	aattgtagtg	actcactggc	accgagatca	ttctggaggc	ataggagata	360
tttgtaaaag	catcaataat	gacactacct	attgcattaa	aaaactccca	cggaatcctc	420
agagagaaga	aattatagga	aatggagagc	aacaatatgt	ttatctgaaa	gatggagatg	480
tgattaagac	tgagggagcc	actctaagag	ttctatatac	ccctggccac	actgatgatc	540
acatggctct	actcttagaa	gaggaaaatg	ctatcttttc	tggagattgc	atcctagggg	600
aaggaacaac	ggtatttgaa	gacctctatg	attatatgaa	ctctttaaaa	gagttattga	660
aaatcaaagc	tgatattata	tatccaggac	atggcccagt	aattcataat	gctgaagcta	720
aaattcaaca	atacatttct	cacagaaata	ttcgagagca	gcaaattctt	acattatttc	780
gtgagaactt	tgagaaatca	tttacagtaa	tggagcttgt	aaaaattatt	tacaagaata	840
ctcctgagaa	tttacatgaa	atggctaaac	ataatctctt	acttcatttg	aaaaaactag	900
aaaaagaagg	aaaaatattt	agcaacacag	atcctgacaa	gaaatggaaa	gctcatcttt	960
agtttcagat	taaagaaagc	tttgttttat	tttgctttga	gagaatggta	tgttttctta	1020
		gaatataaaa				1080
		ttatgctaaa				1140
taggttattt	ctctaacctt	gtcttctaac	gttttaccaa	aaattcataa	tctaatagtt	1200
		aataaaatga				1260
ttaaagttga	tattatttt	ggccgttagt	tatctattac	tagtgatcag	ttatactgtt	1320
ttctatagct	actttattta	acagcacaga	tttctatgca	cctttactct	ttcctcaacc	1380
cttgtctcta	tctgtacata	attgctttgt	cttgatgttt	ctatcaacta	tatcatgact	1440
atctattggt	tccataactc	tgtatcatgt	gtattttctt	attctggtat	accacaaatg	1500
attcatgcaa	atgaatttt	ggtgattgaa	aaatattaaa	ttcccaattt	aaagtaaaaa	1560
aaaaaaaaa						1569

<210> 569 <211> 1207

<212> DNA

<213> Homo sapiens

<400> 569

cccacgcgtc cgctcaaaca tggccgccac ggcgcctctg gaagggaacc gctctgggcc 60 cogcettiga telegitiggi qqqqetqqqq qatqaqaqet qcaccqcqcq qqacaaqtcq 120 coggoggogc cogacqqaqc aqaaqaqaqa qcatqqaqct qqaqaqqatc qtcaqtqcaq 180 coctectiqe ettiqtecaq acacacetee eggaggeega ecteagtgge tiggatgagg 240 teatettete etatgtgett ggggteetgg aggacetggg eeeeteggge eeateagagg 300 agaacttcga tatggagget tteactgaga tgatggagge etatgtgeet ggettegeee 360 acatececag gggcacaata ggggacatga tgcagaaget etcagggcag etgagegatg 420 ccaggaacaa agagaacctg caaccgcaga gctctggtgt ccaaggtcag gtgcccatct 480 ccccagagcc cctgcagcgg cccgaaatgc tcaaagaaga gactaggtct tcggctgctg 540 ctgctgcaga cacccaagat gaggcaactg gegctgagga ggagcttetg ccaggggtgg 600 atgtactcct ggaggtgttc cctacctgtt cggtggagca ggcccagtgg gtgctggcca 660 aagctcgggg ggacttggaa gaagctgtgc agatgctggt agagggaaag gaagagggc 720 ctgcaqcctg ggagggcccc aaccaggacc tgcccagacg cctcagaggc ccccaaaagg 780 atgagetgaa gteetteate etgeagaagt acatgatggt ggatagegea gaggateaga 840 agattcaccg gcccatggct cccaaggagg cccccaagaa gctgatccga tacatcgaca 900 accaggtagt gagcaccaaa ggggagcgat tcaaagatgt gcggaaccct gaggccgagg 960 agatgaaggc cacatacatc aacctcaagc cagccagaaa gtaccgcttc cattgaggca 1020 ctegeoggae tetgecegag cettetagge teagatecea gagggatgea ggageeetat 1080 acceptacae aggggeooce taacteetgt coccettete tacteetttg etccatagtg 1140 ttaacctact ctcggagctg cctccatggg cacaqtaaaq qtqqcccaag gaaqqtqaaa 1200 aaaaaaa 1207

<210> 570 <211> 524 <212> DNA <213> Homo sapiens

<400> 570

atttcatcac aggtaaaggg attgtggcca tcttgaggtg tctccagttt aatgagacgc 60 taactgaget teggtttcac aatcagagge acatgttggg teaccatget gaaatggaaa 120 tagccagget tttgaaggea aacaacacte teetgaagat gggetaccat tttgagette 180 cgggtcccag aatggtggtc actaatctgc tcaccaggaa tcaggataaa caaaggcaga 240 aacgacagga agagcaaaaa cagcagcaac tcaaggaaca gaagaagctg atagccatgt 300 tagagaatgg gitggggctg ccccctggga tgtgggagct gttgggagga cccaagccag 360 attecagaat geaggaatte ttecageeae egecaceteg geeteecaae ececaaaatg 420 teccetttag teaacgcagt gaaatgatga aaaagccate geaggeceeg aagtacagga 480 cagaccotga ctccttccgg gtggtgaagc tgaagagaat ccag 524

<210> 571 <211> 2219 <212> DNA <213> Homo sapiens

<400> 571

cgggcggtcg ggcgggaacg cagtgttgtt ggagagcggg ggcccggctt cgcggcattt egecetetee ggecetteeg gaggeteegg gtttgtgeeg tgtgegtgeg gggeteggeg 120 ctggggcgct cggtaggtct cccgcgggga ggaggcggcg ggggccccgt gtttcttcct 180 ccccqqcccc ccacccgcgc cgtgtcttat gtcgctgcct tctcttcctg tttttcaqct 240 gtcacgaccg gagggggac tcgcagcctt accaggcact taagtattca tcgaagagtc 300 accccagtag cqqtqatcac aqacatgaaa aqatqcqaqa cqccqqaqat ccttcaccac 360 caaataaaat gttgcggaga tctgatagtc ctgaaaacaa atacagtgac agcacaggtc 420 acagtaaggc caaaaatgtg catactcaca gagttagaga gagggatggt gggaccagtt 480 actotocaca agaaaattoa cacaaccaca gtgctcttca tagttcaaat ttcacattct 540 ttctaattcc aagcaattaa ccccaaggca aaactttcag gattgcacct tatgattctg 600 gcagatgact gggtctggag catattagct cttctgggga aaagtactac tacaattgtc 660 gaacagaagt ttcacaatgg ggaaaaaccc caaaqagtgg cttggaaaqa ggacagaqac 720 aaaaagaagc aaacaagatq gcagtcaaca gcttcccaaa aqataqqqat tacaqaaqaq 780 aggtgatgca agcaacagcc actagtgggt ttgccagtgg aaaatctaca tcaggagaca 840 900 aacceqtate acattettge acaacteett ccaeqtette tgeetetgga etgaaccea catctgcacc tocaacatct getteagegg gtecetgttt eteegtgtte caeagetege 960 caatacctcc cttacttcag gacccaaatc ttcttagaca attgetgtcc tgctttggaa 1020 gccacgctgc agcttaataa ttctaatgtg gacataatct ataataaatg aagttcttac 1080 aggagatgtg acacaagcct cactgcagac tataattcat aagtqtctta ctqctqqacc 1140 atctgttttc aaaataacgt ctctgatttc tcaaqctqct caqctctcta cacaaqccca ggcatctaat cagteteega tgtetttaac atetgatgeg teateeccaa ggatcatatg tttetecaaq qaataaqqea caceteaaac ttaacacaqt cectatteaa acetttqqat 1320 teagtactee teetgtttea teacageeaa aggttagtac teeagtagtt aageaaggae cagtgtcaca gtcagccaca cagcagcctg taactgctga caagcagcaa ggtcatgaac ctgtctctcc tcgaagtctt cagcgctcaa gtagccagag aagtccatca cctggtccca atcatacttc taatagtagt aatgcatcaa atgcaacagt tgtaccacag aattettetg cccgatccac gtgttcatta acgcctgcac tagcagcaca cttcagtgaa aatctcataa

```
aacacqttca aqqatqqcct gcagatcatq caqaqaaqca qqcatcaaqa ttacqcqaaq
                                                                   1680
aagegeataa catgggaact atteacatgt cegaaatttg tactgaatta aaaaatttaa
                                                                   1740
gatctttagt cogagtatgt gaaattcaag caactttgeg agagcaaagg atactatttt
                                                                   1800
tgagacaaca aattaaggaa citgaaaagc taaaaaatca gaattootto atggtgtgaa
                                                                   1860
gatgtqaata attqcacatq gttttqaqaa caqqaactqt aaatctgttq cccaatctta
                                                                   1920
acatttttga gctgcattta agtagacttt ggaccgttaa gctgggcaaa ggaaatgaca
                                                                   1980
aggggacggg gtctgtgaga gtcaattcag gggaaagata caagattgat ttgtaaaacc
                                                                   2040
cttgaaatgt agatttcttg tagatgtatc cttcacgttg taaatatgtt ttgtagagtg
                                                                   21.00
aagccatggg aagccatgtg taacagagct tagacatcca aaactaatca atgctgaggt
                                                                   2160
ggctaaatac ctagcctttt acatgtaaac ctgtctgcaa aattagcttt tttaaaaaa
                                                                   2219
```

<210> 572

<211> 1671

<212> DNA

<213> Homo sapiens

<400> 572

oqtaqoqoco gagtgtcggg gggcttaccc ttttcgggcc atgatgccgg gaaccgcgct 60 gaaggeggtg etgetggeeg tgetgetggt ggggetgeag acceegacgg gtegtetget 120 gagtgggcag ccagtctgcc ggggagggac acagaggcct tgttataaag tcatttactt 180 ccatgatact tctcgaagac tgaactttga ggaagccaaa gaagcctgca ggagggatgg 240 aggocageta gteageateg agtetgaaga tgaacagaaa etgatagaaa agtteattga 300 asacctettq ceatetqatq qtqaettetq qattqqqete aqqaqqcqtq aqqaqaaaca 360 aagcaatage acageetgee aggacettta tgettggact gatggcagea tatcacaatt 420 taggaactgg tatgtggatg agccgtcctg cggcagcgag gtctgcgtgg tcatgtacca 480 tragocatog graccogotg gratcggagg cocotacatg ttoragtgga atgatgaccq 540 gtgcaacatg aagaacaatt tcatttgcaa atattctgat gagaaaccag cagttccttc 600 tagagaaget gaaggtgagg aaacagaget gacaacacet gtacttecag aagaaacaca 660 ggaagaagat gccaaaaaaa catttaaaga aaqtaqagaa gctqccttqa atctqqccta 720 catectaate eccageatte coetteteet ceteettgtg gteaceacag ttgtatgttg 780 ggtttggatc tgtagaaaaa gaaaacggga gcagccagac cctagcacaa agaagcaaca 840 caccatetgg coeteteete accagggaaa cageeeggae etagaggtet acaatgteat 900 aaqaaaacaa aqcqaaqctq acttaqctqa qacccqqcca qacctqaaqa atatttcatt 960 ccqaqtqtqt tcqqqaqaaq ccactcccqa tqacatqtct tqtqactatq acaacatqqc 1020 tgtgaaccca tcagaaagtg ggtttgtgac tctggtgagc gtggagagtg gatttgtgac 1080 caatgacatt tatgagttot coccagacca aatggggagg agtaaggagt ctggatggqt 1140 ggaaaatgaa atatatggtt attaggacat ataaaaaaact gaaactgaca acaatggaaa 1200 agaaatgata agcaaaatcc tottattttc tataaggaaa atacacagaa ggtctatgaa 1260 caagettaga teaggteetg tggatgagea tgtggteece acqaecteet gttggaccee 1320 cacgitting otgitatectt tatoccagoo agreatocag otogacotta tgagaaggta 1380 cottgcccag gtctggcaca tagtagagtc tcaataaatg tcacttggtt ggttgtatct 1440 aacttttaag ggacagaget ttacctggca gtgataaaga tgggetgtgg agettggaaa 1500 accacctotg ttttccttgc tctatacagc agcacatatt atcatacaga cagaaaatcc 1560 agaatetttt caaaqeecac atatggtage acaggttgge etgtgcateg gcaattetca 1620

tatotgtttt tttcaaagaa taaaatcaaa taaaqagcaq qaaaaaaaaa a

<210> 573

<211> 1612

<212> DNA

<213> Homo sapiens

1671

<400> 573 equeaquato oggeetetet oguaattote ceoogtotte occoetogua ceeooctegu 60 gaggacgagg tgccgctgcc tggagaatcc tccgctgccg tcggctcccg gagcccagcc 120 ettteetaac ccaacccaac ctagcccagt cccagccgcc agcgcctgtc cctgtcacgg 1.80 accompage taccatgoat cotgoogtot toctatectt accognocte agatgotece 240 ttctgctcct ggtaacttgg gtttttactc ctqtaacaac tgaaataaca agtcttgata 300 caqaqaatat aqatqaaatt ttaaacaatq ctqatqttqc tttaqtaaat ttttatqctq 360 actggtgtcg tttcagtcag atgttgcatc caatttttga ggaagettcc gatgtcatta 420 aggaagaatt tecaaatgaa aateaagtag tgtttgeeag agttgattgt gateageact 480 ctgacatage ccagagatac aggataagea aatacecaac cetcaaattg tttegtaatg 540 ggatgatgat gaagagagaa tacaggggtc agcgatcagt gaaagcattg gcagattaca 600 tcaggcaaca aaaaaqtgac cccattcaag aaattcggga cttagcagaa atcaccactc 660 ttgatcgcag caaaagaaat atcattggat attttgagca aaaggactcg gacaactata 720 gagtttttga acgagtagcg aatattttgc atgatgactg tgcctttctt tctgcatttg 780 gggatgtttc aaaaccggaa agatatagtg gcgacaacat aatctacaaa ccaccagggc 840 attotgetcc ggatatggtg tacttgggag ctatgacaaa ttttgatgtg acttacaatt 900 ggattcaaga taaatgtgtt cctcttgtcc gagaaataac atttgaaaat ggagaggaat 960 tgacagaaga aggactgcet tttctcatac tctttcacat gaaagaagat acagaaagtt 1020 tagaaatatt ccagaatgaa gtagctcggc aattaataag tgaaaaaggt acaataaact 1080 ttttacatge cqattgtgac aaatttagac atcetettet gcacatacag aaaactecag 1140 cagattqtcc tqtaatcqct attqacaqct ttagqcatat qtatqtqttt qqaqacttca 1200 aaqatqtatt aattootgga aaactoaago aattoqtatt tqacttacat totqqaaaac 1260 tqcacaqaqa attccatcat qqacctqacc caactqatac aqccccaqqa qaqcaaqccc 1320 aagatgtage aagcagteea cetgagaget cetteeagaa actageacee agtgaatata 1380 qqtatactct attqaqqqat cqaqatqaqc tttaaaaaact tqaaaaacag tttqtaagcc 1440 tttcaacagc agcatcaacc tacgtggtgg aaatagtaaa cctatatttt cataattcta 1500 tototatttt tattttgaat aaacagaaag aaattttggg tttttaattt tttttcccc 1560 cgactcaaaa tgccattggt catttaatat tagtagcctc ttaaaaaaaa aa 1612

<210> 574 <211> 928 <212> DNA

<213> Homo sapiens

ggaaaacggg tccaaccgag ggcgtcaa

<400> 574 60 ttggttccca agacaagccg tgacgtagac tcccaacaag ctggggaatt ctggacagcg 120 aaggggtgga cagtgagact cagcacagcc caaagtcaaa ggcattaggg ttgttctgaa 180 aatagagatt caagaagccc tggaaaatgc tcttatccat gagaagagca cagactgtgg 240 ggtcccactt catggctgat atccagagec gcagggctgg cgtgtggctc acacagtcca 300 gtatcecata cacatecage egeteaaace agggecagag gaggtaatea atcatggata 360 tacaggitec accaaagaag qiqqiqtict qatactcaag aatcicticc aqqiiqciqa 420 attectgacg cagggetgee tteagattag tgeattetet cecacatete aacgetacea 480 ggcactcctt ggtcaaatgt gggaccttac aaaatagetc caataacatc ttttggegag 540 ctcgttcata agggtcatat ggaaacaget teetteetgg ataagcatca teeaggtact 600 cacaagcaat aacagattca tagatcagtt gacattggct ggtctccagg acaggaatgt 660 ggccaaaagg gtgctttgta tagtaccatt caggettgtt tetcaggtta atgttgacca 720 cttcatgtct gatgtctttg gccttgagga cgaggcgggt cctgtgagaa taggggcaga 780 acctcatget gtagatgegg ateageceet cegggactgg ceetggggge tggetteetg 840 cagagcageg atggaggggg acagggaaag gagaggctag cggacgcgtg ggtcggcccg 900

928

<210> 575 <211> 1116 <212> DNA <213> Homo sapiens

<400> 575 ttttttggga ttttgcaaca tttaatcaaa aaagaatctg gcatcttaaa agttaggttt 60 acaaacttga cacattotca atattagcaa tttatctatt taaacattgt ctaagaaaat 120 atgatctatg aagacattaa tacattaata agatacttaa gagttcatta taagctacaa 180 cactttgcaa ataagtatcc agtttaattg taacaaacca caatttgtga gcaaatttaa 240 gaatataaaa aacattaatt agttaaatac aattototgg gaatatacat tatacotaca 300 gctgttttta cagtgagagt cttccttttt ttttcctttt aattatcaaa atggtaaatc 360 actgtatggt cctggatctc catgctataa aactgaaata tgtatttcca gcgtagcaga 420 tggtgaccag gaaggcaaag aacgatgagg ccqcccagct gttgaagttg tgactqtccc 480 teteagggga gaeggaagat geatetacaa caqeggeaga gaggtacaag acgaaggeae 540 tqccqttaaa qcacaqqccc actqttqtcc aqqqcacctq qqqaatcctq qtqtaqqtca 600 ttgttatgta gataatgagg aagaagacgg tgaggaccca gtaaaataca gctacaaaca 660 tgacccagcc aaatgcgggg acccggaagt actcagttcc agcaataagc gtccatacca 720 gcagccccag aacgatctcg gccacgatga ggaagccggg cagggtgcgg aggaactccc 780 ggtcgtaggc gaagctgctg ctgctggtat ggacgcttat tgctggaact gagtacttcc 840 gggtccccgc atttggctgg gtcatgtttg tagetgtatt ttactggqtc ctcaccqtct 900 tottoctcat tatctacata acaatgacct acaccaggat tocccaggtg coctggacaa 960 cagtgggcct gtgctttaac qgcagtqcct tcqtcttqta cctctctqqc qctgttqtaq 1020 atgeatette egteteeest gagagggaca qteacaactt caacaqetgg geggesteat 1080

1116

<211> 3246 <212> DNA <213> Homo sapiens <220> <221> misc feature <222> (1) ... (3246) <223> n = a,t,c or q

<210> 576

cottettiqe ettectggte accatetget acgetg

<400> 576

cccacgcgtc cgccggacgt aggaggtgga ggttgtggaa ttcgccgttc gaaagcaggg 60 actaaaagcc ccacttcgtc ttacgttccg aaaggaaggc gtctgttgag cctttctctc 120 agtcgtgagg gaggcgtcga cggcgtgcgg aaqtcctgag ttgaggcttg cgggatcctt 180 teeggagaaa gegeaggeta aageegeagg tqaaqatqte caactaegtg aacgacatqt 240 ggccgggctc gccgcaggag aaggattcgc cctcgacctc gcggtcgggc gggtccagcc 300 ggetgtegte geggtetagg ageegetett tttecagaag eteteggtee catteeegeg 360 tetegageeg gttttegtee aggagtegga ggageaagte eaggteeegt teeegaagge 420 gccaccageg gaagtacagg cgctactege ggteatacte geggageegg tegegateee 480 gcagccgccg ttaccgagag aggcgctacg ggttcaccag gagatactac cggtctcctt 540 cgcggtaccg gtcccggtcc cgtagcaggt cgcgctctcq gggaaggtcg tactgcggaa 600 gggcgtacgc gatcgcgcgg ggacagcgct actacggctt tggtcgcaca gtgtacccgg 660 aggagcacag cagatggagg gacagateca qqacqaqqte geqqagcaga accecettte 720

	aaaagatcga					780
	aaccaacatt					840
	tggaataggt					900
gtttgtcgga	acaaaacttt	cagaaagcca	actgtcaaat	ctgattagcc	acttatatct	960
tagactatac	tttttgggaa	gtctagagat	gtatataatg	tgctaaattc	aaagtagcaa	1020
atctgaagat	aggcaatgtc	aaacccatga	aaatgggaga	ttaatgagct	ttatttggcc	1080
gtgcatggtg	cctcatgcct	gtaatgaggc	agatggcttg	agtccaggag	ttcaagacta	1140
	tgtggcaaaa					1200
	ctgtagtccc					1260
	gttgcagtga					1320
cgagaccctg	tctcaaaaaa	tacatttatt	tttttcattt	tcagttaaca	gtgtactctt	1380
ataacaccgt	tattagctgg	tactttggtg	atttctatta	ctagtttttc	taagctattt	1440
acagagtgtt	tgtagctttc	atttgcagca	ttatgttccc	acaaattctg	tactcagcat	1500
atacagtata	gtttatctgc	tctatttctg	tcttatagaa	atcatgaatg	tggtctgcag	1560
acattgatga	agaaaatctg	ttggtaattg	atacatgggc	taaagcatca	gaggtttaat	1620
ttgaagttta	tgttcacaca	ctgaaaactt	agtttttttg	ttggtagatc	catgtgcatg	1680
ctagaatttg	ggacaggcac	tatttgcata	aagtattaaa	gtcaattttt	aaactaagca	1740
aaggtacacg	ttgtaacggt	ggggcatctg	tgaaaaagat	gtccctttca	taatatatgc	1800
	agatgttttg					1860
cggaaaaggt	aacagaagat	ggaactcgaa	atcccaatga	aaaacctacc	cagcaaaqaa	1920
gcatagcttt	tagctctaat	aattctgtag	caaagccaat	acaaaaatca	gctaaagctg	1980
ccacagaaga	ggcatcttca	agatcaccaa	aaatagatca	gaaaaaaagt	ccatatggac	2040
tgtggataac	ctttggtcca	tctgtgctat	ctctcatatc	tgcaagagaa	acctaaaatg	2100
ttaatatttg	agtgttaagt	atttacatct	ttttgtgttg	gtttttaaat	gcacaagtac	2160
ccctgaatgg	ctcaaaggga	tgggataatg	ctagaaacac	taacttgcaa	taaaqtgcag	2220
	aacttagcca					2280
gactttttt	ctgatctatt	tttggtgatc	ttgaagatgc	ctcttctgtg	gcagctttag	2340
	tattggcttt					2400
	ttcattggga					2460
caggttaaga	aaaagtgtaa	ttttaaaaca	catacccttg	gtttctaaat	cctatattaa	2520
aaaatagcct	aattgtaaac	aaaatttagc	tgtagacaca	aaaatcaact	tggatctaac	2580
agcctaagta	acagaactat	tgagttttcc	ccttaacaaa	actgatttaa	tattaggett	2640
aagacactct	tcccataatt	attttacttc	cctgctggca	aatttaaact	aatttttaa	2700
tcagttttct	caggttgaat	caagttcact	tttgaaatgt	aaagccacat	cagaaaatac	2760
gttttaagaa	actaaggcat	ttgccagtta	ggcacctaat	cgtctgaaca	aagaccttgt	2820
ctactaatac	tgagcaaacc	cacatctggg	cccaattaca	cagattcatt	tagatacage	2880
	ttttaagccc					2940
aaagtacagt	gcaatttgct	aatgcacatc	ctgcacattt	ctggagaatt	ataataaact	3000
tatctgcaag	tgaagcaggc	ctcctcttct	gtaatctctc	aaaacatttc	aggetttgea	3060
	atacacctat					3120
	agtcaatgtt					3180
	cattcgatct					3240
cctgga			7,	_		3246

<210> 577 <211> 2393 <212> DNA

<213> Homo sapiens

c400> 577

thtegtgeta acctograge agagaggagt tgagggggat gagagggggt actgcgaact 60
gcegggcgat gctgtcgetg cogcegtgat acgggagga acagttocc agcaacacc 120
ctccccgac caggcacaca coccequac ggcacgcac cacaccaca agtgccggc 120
teggctgege ctcctctatt ggcccaggaa gccaaccag cccgccag cagagcccag 240
asggaaagaa agcctcatgc ctgagccgag gggagcaca tggatctgac aaaaatgggc 360
atgatccage tgagaacca tacacacgggctac tgtgcaaggc caaccagatg 360

cggctggccg	ggactttgtg	cgatgtggtc	atcatggtgg	acagccagga	gttccacgcc	420
	tgctggcctg					480
caacactata	ctttggactt	cctctcgcca	aagaccttcc	agcagattct	ggagtatgca	540
	cgctgcaagc					600
	tcgagtacct					660
	atgacacgga					720
cgcaaggete	ggtacctcaa	gaacatcttc	atctcgaagc	attccagcga	ggagagtggg	780
	tggctggaca					840
	ttggtctttc					900
	agteteteet					960
actctggctg	ggggtgggcg	gcaccctggg	gtggctgagg	tgaagacgga	gatgatgcag	1020
gtggatgagg	tgcccagcca	ggacagccct	ggggcagccg	agtccagcat	ctcaggaggg	1080
	aggttgagga					1140
	gtgctaggga					1200
	aggetggeea					1260
	tgggcatcta					1320
atgccgtctt	ccgtgacctc	tggcctccac	gtgcagcctg	ccctggctgt	ctccatggac	1380
	atggggggct					1440
	tggctgtggg					1500
	tegagettee					1560
gggatgaaga	cgtacgggtg	cgagctctgc	gggaagcggt	tcctggatag	tttgcggctg	1620
agaatgcact	tactggctca	ttcagcgggt	gccaaagcct	ttgtctgtga	tcagtgcggt	1680
gcacagtttt	cgaaggagga	tgccctggag	acacacaggc	agacccatac	tggcactgac	1740
	tctgtctgct					1800
	tccacgcggg					1860
	cggctctcaa					1920
	gtggcagctg					1980
cacacgggtg	agaaacccta	cgagtgcaat	ggctgtggca	agaagttcag	cctcaagcat	2040
	cgcactatag					2100
caccageget	cccgggacta	ctcggccatg	atcaagcacc	tgagaacgca	caacggcgcc	2160
tegecetace	agtgcaccat	ctgcacagag	tactgcccca	gcctctcctc	catgcagaag	2220
	gccacaagcc					2280
	gctatgtgtg					2340
aaagaagagt	tggagtgaga	tgataggaag	gactatgaca	aataaaaaaa	aaa	2393

<210> 578 <211> 1258 <212> DNA <213> Homo sapiens

<400> 578

aagaaccgag ggagaagccg gatgtttgca aacaatcgag gagacgactt gcggaccaga 60 cggcgcggac gtgttcgtac ccggagcctc tgcgtggaag agcgcgttcg tcgcgaccct 120 geogetgetg ttggteeteg eggegetgge getgggegte eteeggaage ageggagaag 180 ccgagaaaag ctgaggaagc aggcggagaa gagacaaggt gagcggggac agggcgttct 240 gcacgcacct gcccaagtgc caaaacccgc cgtcatctaa aggctgtggg tcccgttacg 300 agggtttatt ccagcgcgag gtgtcagggc ggccaccggg gaacggggat cggtgacccc 360 ggtggggaag ggggaagatc gttcatatgg acaaaagcgg aggtgcggaa cggctgcatt 420 ttccacggag gctagtgcac agatgtcagg gttgaccggc tgctgtcgtt acgccctcgg 480 agetteacat cacactgtac agagggageg gtgaccaggg tetetgetge cagegecace 540 togtocaggt tttcatageg cacagggagt cgggcggatg cgcaacatct ccgcacaggg 600 tcaggaageg geggtcagge accgagaaaa cagcccagtt acgtgaggca gtgtccgggg 660 cttaacgttt ccgccgagct aatagatttg ggaggctccg accctgattt tcacactagc 720 aggagggagg gegetgggte accetectat geagaaggge agccaagggt gegeacttee 780 ccatcccctg cctggagcct cacttccagc ccagcctggg cccgcagacc accgcgggtg 840 ggagtgccgc atcggaggtg aggcctcagt gttcacccat ctgttctgtc tgcctcattc 900

<210> 579

<211> 2003

<212> DNA

<213> Homo sapiens

<400> 579

caegggccgc ageggcagtg aegtagggtt ggcgcaegga teegttgegg etgcagetet 60 geagteggge egtteetteg eegeegeeag gggtageggt gtagetgege agegtegege 120 gegetacege acceaggite ggeocgitagg egictggeag ceeggegeca tetteatega 180 gegecatgge egeageetge gggeegggag eggeegggta etgettgete eteggettge atttgtttct gctgaccgcg ggccctgccc tgggctggaa cgaccctgac aqaatqttqc tgcgggatgt aaaagetett accetecact atgacegeta taccacetee cgcaggetgg atcocatccc acagttgaaa tgtgttggag gcacagctqq ttgtgattct tataccccaa 420 aagtcataca gtgtcagaac aaaggctggg atgggtatga tgtacagtgg gaatgtaaga eggacttaga tattgcatac aaatttggaa aaactgtggt gagctgtgaa ggctatgagt 540 cctctgaaga ccagtatqta ctaagagqtt cttqtqqctt qqaqtataat ttagattata 600 cagaacttgg cctqcagaaa ctqaaqqaqt ctqqaaaqca qcacqqcttt qcctctttct 660 ctgattatta ttataagtgg teeteggegg atteetgtaa catgagtgga ttgattacca 720 togtggtact cottgggate quotitgtag totataaget gttggtgagt gaggggagt 780 attotoctoc acceptactot gagtatocto cattitocca coettaccae agattoacca 840 actcagcagg acctcctccc ccaggettta agtctgagtt cacaggacca cagaatactg 900 gccatggtgc aacttotggt tttggcagtg cttttacagg acaacaagga tatgaaaatt 960 caggaccagg gttctggaca ggcttgggaa ctggtggaat actaggatat ttgtttggca 1020 gcaatagagc ggcaacaccc ttctcagact cgtggtacta cccqtcctat cctccctcct 1080 accetggcac gtggaatagg gettactcac ccettcatgg aggeteggge agetattegg 1140 tatgttcaaa ctcagacacq aaaaccagaa ctgcatcagg atatggtggt accaggagac 1200 gataaagtag aaagttggag tcaaacactg gatgcagaaa ttttggattt ttcatcactt 1260 tototttaga aaaaaagtac tacctgttaa caattgggaa aaggggatat tcaaaagtto 1320 tgtggtgtta tgtccagtgt agctttttgt attctattat ttgaggctaa aagttgatgt 1380 gtgacaaaat acttatgtgt tgtatgtcag tgtaacatgc agatgtatat tgcagttttt 1440 gaaagtgatc attactgtgg aatgctaaaa atacattaat ttctaaaacc tgtgatgccc 1500 taagaagcat taagaatgaa ggtgttgtac taatagaaac taagtacaga aaatttcagt 1560 tttaggtggt tgtagctgat gagttattac ctcatagaga ctataatatt ctatttggta 1620 ttatattatt tgatgtttgc tgttcttcaa acatttaaat caagctttgg actaattatg 1680 ctaatttqtg agttctqatc acttttgagc tctgaagctt tgaatcattc agtggtggag 1740 atggccttct ggtaactgaa tattaccttc tgtaqqaaaa qqtqqaaaat aagcatctag 1800 aaggitgitg tgaatgactc tgtgctggca aaaatgcttg aaacctctat atttctttcq ttcataagag gtaaaggtca aatttttcaa caaaagtctt ttaataacaa aagcatgcag 1920 ttototgtga aatotcaaat attgttgtaa tagtotgttt caatottaaa aagaatcaat 1980 aaaaacaaac aaggggaaaa aaa 2003

<210> 580

<211> 1206

<212> DNA

<213> Homo sapiens

```
<400> 580
ttttttttt ttagtattta taatcattta cttgtagcga actgtttaaa gttaacactt
                                                                    60
gtttaaattt ttttacacta tagcatttat gcaatggttt acagaattca tqqaqttatt
                                                                    120
tttatcagta tgggaattaa ttaaaacctt gaatctttgt tttgtctgct tctctgagca
                                                                    180
caageetggt cagetggtee etgegggtee taccagecag ettetetgta gggetetegg
                                                                    240
cegegtecae etetgetete ceaecacaag gteacaaaet eecaegeagt cetgggteae
                                                                    300
eccgcagetg etetggagae ttggetetgg gegtetegtg geccaagtge tecaagttgg
                                                                    360
aagtttetgt gggeetegtg taggggatge egtgetgggt gagcaaacet tteageettt
                                                                   420
tgateteett tgagagttet ttatgageet teetgeagtt tteeagggte teaaacecca
                                                                   480
agetgteagg acctecetee agetgggtgg gtteatttte ttetggggte tttaagtage
                                                                   540
cagcatecte aaaaaqtqte etcaqcaact tetcatqqce etqqqqqqtg atcaqetcat
                                                                   600
                                                                   660
eggecaggte etgetetace tggteccact geogetgeag ggcetetgge agggttgggt
acactaqcaa qqcqtqqqqq tqqcaqacqa qqqqqqtctc qaacqtcaqc qcqtaqacqc
                                                                   720
aggtgctcgg ctcggacaca tgggccagcc ggttgctttt tccacacgcc agctccacct
                                                                   780
tgctctgcgg gctccgggaa cggcaggcgt caccqtccct catccacatg cccqtgaagg
                                                                   840
tottottoge gateteccae tegtoccaga toccoaggat eccaetotag geottecage
                                                                   900
qgaaqqtctq ctcqtqctqq qtcacqttqt qgaacqqqca qaactcatac ttgtacqtqq
                                                                   960
actocaccag gotqaaqcac ttgcccqaga gtcggaagag atgcacgggt ccaqacacqq 1020
gtgaaggate cetettggee tggaggegae tggeetgagg caaqaaeggg ttgtteacee
                                                                   1080
caaacgogtt gggctcctcc accaccttca tettegetge acctqccqgc gcgggcccgc
                                                                   1140
eggeegagag ecegaggage aacaggagee gegeeageee egeegecate gegeegeage
                                                                   1200
                                                                   1206
qqccqc
```

```
<211> 1132
<212> DNA
<213> Homo sapiens
<220>
<221> misc_feature
<222> (1)...(1132)
<223> n = a,t,c or g
```

<210> 581

<400> 581 ttttttttt ttaataccat tctqtqattt aaacttttct attqqtqact tttaqttgta taggcacgga aaggaaaatc aattgttttc tttaatgctg agaatttttg ttaatatttc 120 togacattic ataaaacatc tittotigac attotacaaa togataqcatc caataatotc 180 ccaatacttt cttcttgtga agagagttta tatatctttt tgacttctgt aatattcatt 240 atttcaggaa gatttttcag agaaacctga tgaccttcta cttgagatat taggtattct 300 tgatttattt gtttttctcc ctcttcaatg taaacaatta gaattgaagt gtcatttgct 360 gagataccaa attttttcaa ageetetgaa atattgttat ttggggaaag gttgaaaata 420 atttcagtag atagagttct tgtcttcatt tttcccagtt tgtagaggtg aactgctttg tttgctgcca caagtatctg aaatggatca acaatcactg taggatttat cagtgatcca togatggtgc cttccatggc ctttcttctc aagtctcccg cattttttac atctttaaat aacagaaggg ttaccctgca ttcgggaaat aggtccagct gatgtgttaa ctgcatttca cagataagca ggattetaca teeggeeeee aqtgegtete ggaagagete eegeteegaa acaaageeca caactteegg aagegatgge caateecegt ettettegag ceagttteeg gataggcegg ctcggggtgg ccatctgttt ccgggtcctg gtaggagggt tgcttccgcc 840 catggtcccg cccattcttc cqcctccca acctqqqtcc cqtcaacqqa cqcqaaqqaq 900 aacagggget gtatatcact teeggegaag gaaatggaag aatetatggg etgggaeegg 960

1020

aagctggggt ctggttttga gtctcggctt tgtcttaacc tgtgttgggc gttgcaccgg

gogacotcag tttettectg tacaaggaaa agtactgace aaaatgagtt etacatacat 1080 tteegetget ggagatttet ttnnteeace ggeneteaat agtggtetea tg 1132

<210> 582 <211> 8029 <212> DNA <213> Homo sapiens

<400> 582 tttttttttt ttacaqqqaq aqqaaattct qttaattcca cqtttattaa tcacacaqct 60 ctctgcagac tagacactaa aacacacaat tgtcaaaaac tagaaaaatg agttatgtcc 120 acgttttaaa agcaaaactt tataaatttc ttaccacact cattcccaag ttttatccca 180 caaagtatag catgaaacaa tgacaacata catattattc aagtaaaatg ctatttaaaa 240 tagetgeaca caggtaatta aaacactagg atccagtttt tagaggaaaa agtcatgtgg 300 cacaatttca agttcataat tgaagttaac agtaaaacag atttgctcac atttgcttct 360 gatetttatt tetgetgtet etetttagta gaataaagaa atggeaette acataaaate 420 atatttaaaa gotactaaaa tggataaaca gatgcagatc agototttaa tgagaatoco 480 tgcatagctg gaggaagttc aaggataatt gttttttcaa ggcaaataga ctcttgttac 540 gtggctaatt teatgtacat tateateget gggaagttee tgetgagaac teaeggtage 600 tatgccagaa aagtactttc ttcacaggag gtgttgaaat aatgccggat aaatgcaagt 660 aaggtcaata totocotott ggtctagatc aggagctggc aaactttttc tttaaggaga 720 caagtagtaa atcttttagg ctttgcaggc tatactgtcc ctgtcccaac tattcaactc 780 tgccaagaaa gcagtcccag acaataccat aaatgaatgg gtgtggctat gctctaataa 840 cattttqttt atqqacactq aaatctqaat ttcataqaat tttcaqqqtqt catqaaatat 900 tgttcttctt ttgattttct gcccaatcat ttgaaaacat ataaaccatt cttagctcac 960 aggttgtata aaaacaggtg gcaggccagg tttgattcgt gggccatagt ttgccaaccc 1020 ctgatctaat ggtccttttc tagtccatgt tgtaaaatgt atatatttt aaaatcccgt 1080 tacatatggc tactttattt aaaaaacaac aaaaacgttc agttaaaaat aattctcttt 1140 cttcccacaa ccaagggcca ttttactaaa caataagcta tttcctttaa ttaqaaaatt 1200 gatcaaggat atacaatgag tototggcot caatttatga accoatgago caaatatgca 1260 agaagactca aaatttqcca cccaqccaaa qaatctactq qcttacaatq ttaaaaattt 1320 atttggaagt attcctgcac acatctcagc atcggtaatc cagagttata aaaaataatg 1380 ttggagcatt tgtattettt ttttgaggeg gagteteget etgteateea ggetggagtg 1440 cagtggcgtg atctctgctc actgcaaget cegceteetg ggttcaegec atteteetge 1500 ctcaqcctcc agagtagctg ggactacagg cacctgccac cacatccgac taattttttt 1560 tgtattttta gtagagacgg ggtttcaccg tgttagccag gatggtctcg atctcctgat 1620 gtcgtgatct gcctgccttg gcctcccaag gtgttgggat tacaggcgtg agccactgtg 1680 cccagcccag catttgtatt cttaatagaa aaaggatgga tacatctaaa tcacaagtaa 1740 ttaaaatgtt atataaaacc acctaaaaac tacacaaata aagagaagac attaactgtc 1800 aaaatgotga gtatgtgatt ottgacaggg coggggcact gtcactagga gatgaattto 1860 agetetteet teteettqqq acettqqqaa tqtqqctaqt acactecaqq ccaqatqcta 1920 ggcagctccc tgtgtgccca gggtcttgcc agacctttag ttactcaacc atagcttccc 1980 agtggctcaa tgagggatgt taaatcctag gtggggttca ggagtaattg catccagcac 2040 tactttcatt cacattttcc ttccacaacc cagaataacc acaagatgta agtggagtct 2100 acacagacag agatggggaa aggaaggtgc ttcgtctcca cctacttggc cqcctaattg 2160 gatttgcatc tgtttaagat tacggagtct ttctttcaaa gtgagaggca acgccggtca 2220 tagoggottt tgttttttgt gogttatttg aatgatgago tgtaaaaact ctcattagat 2280 aaaaggtgcc tgaaattcaa gggctcatgc ctcttctaca aagtgggttg gcaattacag 2340 aaattettte cettttgggt tgactgtggt gaaagtactt ttgetetttt ggaggtgagg 2400 gagcagcacc acaccaggac agaaagaaca ggctcaggtg acagccactt actcaggctc 2460 aggteggtgg geaagtggge actggeetee teccatettg geaaageeae tgacagtagg 2520 caaggaaggg ctgggcggtg ctgctcqtaa caatqqctct tqtatgtcct taqaattttc attittitgt gaagtgettt tactitetet etggeteaca gtategeaag gagetaagta aggeetgtat ggaateteea etgtateeat gggatgggag gtgetgaaca caegeecaag gcaacaaggc cactcaggga aggagccagg ccatgccact gcgtgccttc catcctacca 2760

agetgettet getattettt getttagagt teageteatt tagtcaagga aatgaaatga

agtggcaaac	aggacagaaa	tgaaaataga	attctttaag	tggtaaattt	gggacaataa	2880
aggcatcaat	taaaatatgg	ttcaggaata	gggagaggtg	ctccttcqtq	cctcacagaa	2940
	ttctgtgcta					3000
	agatgcacat					3060
	ccctcacct					3120
	ttctgtagcg					3180
gcctttgtga	cggcccatgg	ggctgggcct	gccttgtgct	gtgcctgctc	tgaggcagct	3240
ggggctgtgg	tggggatcca	gggcctcatt	ctgtaaaccc	agtgetggtt	ctctgggagt	3300
	aggcacgtgg					3360
	tttaagatta					3420
agetatteet	ttatttaasa	tantemeter	antataanta	****	t-c-t-t-t	3480
	ttatttaaaa					
	tttaaagaac					3540
tccagatact	catcaatgcc	atacttggac	ccctctcgcc	caaggccgga	ctgcttcact	3600
ccaccaaaag	ggcactccac	agaggaaatt	aatccttcgt	tgacgccaac	catgcccact	3660
tecagetget	ctgccactct	ccagatetgg	getgggtett	gaqaqtaaaa	ataacctqct	3720
	cagctgcgtt					3780
	gaggcccgaa					3840
	taggeteaaa					3900
	ctttagaaac					3960
	atgggccctg					4020
ttcttcatgg	cctcggcgaa	tgcttttaca	aaggcatcat	ggatgcccct	ttgcaccaag	4080
aattggtttg	agcaaacaca	agtctgtcca	gtgttcctaa	atttagatgc	catggcccct	4140
gctacagcct	ggtccacgtt	ggcactgtca	aatactataa	atggaggaag	accacceaac	4200
	cccttttcac					4260
	taaaggaaat					4320
	tetttegaga					4380
	gcaacaatgg					4440
	agaagggegt					4500
	ccaccttccg					4560
gcagccacgc	ctatgggctg	cttgaggacc	agggcccgcc	tgtcctttgc	cggggtgtag	4620
ataatgtctc	cgtaaacacg	gcgggcttcc	tcagagaacc	actctaggaa	aaaggcggaa	4680
tagagaattt	ctccatgtgc	ctccttcagt	ggctttccac	tttcagctgt	gattattctg	4740
	ccttattttg					4800
	agacctccct					4860
	gcaccccgca					4920
						4980
	aaggtggcgg					
	gcagagaggc					5040
	ccggaggcag					5100
	ccgaggcgcc					5160
ccgggcaacg	acggcgacag	gaaacaggtt	gtggcctggc	ctgctgatca	tgttgggttc	5220
tctctgccat	agaggttcac	cgtgtggcct	ttcaacacac	atagaaatag	gacacagagc	5280
tctggagttt	cttcagcttc	acaatgggcg	tqttaactac	agagagetet	tactagaaca	5340
	tatcaggctg					5400
	ttccatgatg					5460
	atccgagaga					5520
						5580
	tttggaatta					
ccttgaacaa	ggattcctta	ggaccatggg	agctattgat	tttcacggct	cctattcaga	5640
ggeteatteg	gctggtgatt	ttggaggaga	tgtgttgagc	cagtttgaat	ttaattttaa	5700
ttaccttgca	cgacgctggt	atgtgccagt	caaagatcta	ctgggaattt	atgagaaact	5760
gtatggtcga	aaagtcatca	ccgaaaatgt	aatcgttgat	tgttcacata	tccagttctt	5820
	ggtgagatgc					5880
	gtggaacaat					5940
	aatatttacc					6000
gangetgeet	gagaaccctc	tottoottoo	atataaaaaa	gagaacggga	0009090009	6060
caacetgeee	gagaaccccc	tgtttattge	acgregge	Cagcadaacc	acacccaggg	
	cagaaaaatg					6120
	ataaactata					6180
	teetttatet					6240
tggctctcag	ttgtcacaaa	agcacgtctc	cagcccctta	gcatcttact	tettgtcatt	6300
	aggettgget					6360
	gtgggcgcac					6420
	tacggcaatg					6480
	atccttgaag					6540
	aacgtggacg					6600
	accuacaaag	gtgccgtgta	Lyccacttt	ggttccaaac	aaggaggaat	6660

```
gtottottoo ootaacatca coatttottg coaggacate tactgtaact tgggetggac
tetettgget geagatgtga atggagaeag tgaaceegat etggteateg geteecettt
tqcaccaqqt qqaqqqaaqc aqaaqgqaat tqtqqctqcq ttttattctq qccccaqcct
                                                                   6840
qaqcqacaaa qaaaaactga acgtqqaqqc aqccaactqq acqqtqaqaq qcqaqqaaqa
                                                                   6900
etteteetgg tttggatatt ceetteacgg tgtcactgtg gacaacagaa cettgetgtt
                                                                    6960
ggttgggage cegacetgga agaatgecag caggetggge catttgttac acateegaga
                                                                    7020
tgagaaaaag agcettggga gggtgtatgg ctacttecca ccaaacggcc aaagctggtt
                                                                    7080
taccatttct ggagacaagg caatggggaa actgggtact teeettteca gtggecaegt
                                                                    7140
actgatgaat gggactctga aacaagtget getggttgga geceetaegt acgatgacqt
                                                                    7200
qtctaaggtg qcattectga cogtgaccet acaccaaqqe qqaqecacte qeatqtacqe
                                                                   7260
acteacatet gaegeacage etetgetget eageacette ageggagace geegettete
                                                                   7320
cegatttggt ggcgttctgc acttgagtga cetggatgat gatggcttag atgaaatcat
                                                                   7380
catggcagcc cccctgagga tagcagatgt aacctctgga ctgattgggg gagaagacgg
                                                                    7440
cogagtatat gtatataatg gcaaagagac caccettggt gacatgactg gcaaatgcaa
                                                                   7500
atcatqqata actccatgtc cagaagaaaa ggcccaatat gtattgattt ctcctgaagc
                                                                   7560
cagoticaagg titigggaget cocteatoac ogtgaggtoc aaggcaaaga accaaqteqt
                                                                   7620
cattgctgct ggaaggagtt ctttgggagc ccgactotec ggggcacttc acgtctatag
                                                                   7680
cottggetca gattgaagat tteaetgeat tteceeaete tgeecaecte teteatgetg
                                                                   7740
aatcacatcc atggtgagca ttttgatgga caaagtggca catccagtgg agcggtggta
                                                                   7800
gatectgata gacatgggge teetgggagt agagagacae actaacagce acaccetetg
                                                                   7860
                                                                   7920
qaaatctqat acaqtaaata tatqactqca ccaqaaatat qtqaaataqc aqacattctq
cttactcatg tetectteca cagtttattt cetegettee tttgcateta aacetttett
                                                                   7980
ctttccgaac tttttgccta tagtcagacc tgctgtacca cctatttcc
                                                                   8029
```

<210> 583 <211> 405 <212> DNA

<213> Homo sapiens

4400> 583

tegttgogta atteggeacg aggtetgaag atggeggeet cageagegg aggtetgeg 6
gegetgegta gaagtateaa teageeggtt gettettgtga gaagaattee ttggaetgeg 120
gegteggte agetgaaaga acaetttgea eagtteggee atgteagaag gtgeatttta 180
cettttgaea aggagaetge ottteacaga ggtttgggtt gggtteagtt teteteagaa 240
gaaggaette ggaatgeact acaacaggaa atceatatta tagatggagt aaaggteeag 300
gtteacacta gaaggeecaa acteeggaa acteetgatg atgaaaagaa agatttttga 360
qactqeaqee tattaataaa gttaacataa etgagaaaa aaaaa

<210> 584 <211> 1802 <212> DNA <213> Homo sapiens <220> <221> misc_feature <222> (1)...(1802) <233> n = a,t,c or g

<400>	584					
tttttttt	ttgctacatt	ttactttatt	ttgttgtaag	gaaaaccaat	tgactaagtt	60
	tgttagtgtt					1.20
	caaacataaa					180
gggatggett	tcaacacaca	gagagcctaa	gcaagaagag	tgagtactga	aggtctacag	240
	gggagcacta					300
	gctcaacacc					360
aggetgttee	atatacatta	atacttgccc	agctgtgttt	cacgaggcat	ctccataagc	420
caagccccga	ctcaaattct	gtacaggaag	ttcccgttgc	tgtcaaagaa	ctctcggccc	480
ctctgcacta	ctttgctgct	gaagttatct	ggctcctctg	ccttcaactc	ctccagcttc	540
tgaccacttg	gcaacgcacc	actgccagtt	cctctggggc	tctcagaatc	actggagtac	600
ttctgcagct	ctcttggatg	acctaggggt	gcagcaacag	gcacaaagct	ctcctccagg	660
	ctttatttct					720
gactctatca	ctttcaaagc	tgtgctgtga	tttgggtctt	tagatgaggc	ttcatgccct	780
	aagageetga					840
	ggtgctgcag					900
tgcttcagct	tctgctccaa	tgtgggtaaa	aacttgcttt	ttaaaactct	teggateaca	960
tcagtgctga	catcaaagcc	ttcagccaac	ctgggaactg	accaggactc	tggaaattcc	1020
tcatgtaaat	accgtatctg	ctccatggct	tcccacgtca	gggtcctggg	cggggcacca	1080
ggcgcctcca	tttgcctccg	aattttctgg	aatcggattg	cttgtttctg	tegttteagg	1140
gtgctggggg	aagagaacca	atggcagaag	ccatgcgtgg	aagcagaatg	gatgtttgaa	1200
gagcctcagg	ctaaatcatg	gagcgcccag	ccctcttctc	tttgatcgca	agggcaaccg	1260
ggccatgttg	ccggcttaga	gctgctccgt	acacccagaa	agctaacacc	tagaacaata	1320
actgcctgta	agcatgccga	actctctaaa	ctgatgatga	aatacgtcac	taatgaaggg	1380
accagtggtc	ccaggggagc	tgaacacctg	acgctgcgcc	cctaacaacg	ggtaagaaga	1440
aacaagggcc	gctgcgcaag	cagcggcagg	acacccggcg	ccaagggggc	geggeetgga	1500
gegeegggge	acgaggccct	gcttcaagct	gagggccegg	ggagaagccg	gtacctctcc	1560
acctcctgca	geteeegtte	ctccggctcc	cagtcggaat	cggggtccgg	ctcccggcca	1620
atagggcctg	ggcccgccac	cccccgggtc	gegaacccac	agegagtgae	ggcggcgcaa	1680
acgcgcccgc	ccagcaagag	actcagggta	accgccatgt	cgacgcaaac	cagccttcag	1740
cagtcggcta	ccctcgtgcc	aagcttggcg	tanaggtgtt	caatacagtc	tcatttgccg	1800
tc						1802

<210> 585 <211> 1106 <212> DNA

<213> Homo sapiens

<400> 585 acggaagtgc aggaacattt cacaaatcta caatctgtga gtatcacatc ctgtatagct gtaaacactg gaataaggaa gggctgatga ctttcagaag atgaaggtaa gtagaaaccg 120 ttgatgggac tgagaaacca gagttaaaac ctctttggag cttctgagga ctcagctgga 180 accaacgggc acagttggca acaccatcat gacatcacaa cetgttecca atgagaccat 240 catagtgete ecateaaatg teateaactt eteccaagea gagaaaceeg aacecaceaa 300 ccaggggcag gatagcctga agaaacatct acacgcagaa atcaaagtta ttgggactat 360 ccagatettg tgtggcatga tggtattgag ettggggate attttggcat etgetteett 420 480 etetecaaat titacccaag tgactictac actgitgaac tetgetlacc caticalagg accettttt tttateatet etggetetet ateaategee acagagaaaa ggttaaccaa 540 gettttggtg catageagee tggttggaag cattetgagt getetgtetg cectggtggg 600 tttcattatc ctgtctgtca aacaggccac cttaaatcct gcctcactgc agtgtgagtt 660 ggacaaaaat aatataccaa caagaagtta tgtttcttac ttttatcatg attcacttta 720 780 taccacqqac tqctatacaq ccaaaqccaq tctqqctqqa actctctctc tgatqctgat ttgcactctg ctggaattct gcctagctgt gctcactgct gtgctgcggt ggaaacaggc 840 ttactctgac ttccctggga gtgtactttt cctgcctcac agttacattg gtaattctgg 900 catgtcctca aaaatgactc atgactgtgg atatgaagaa ctattgactt cttaagaaaa 960 aagggagaaa tattaatcag aaagttgatt cttatgataa tatggaaaag ttaaccatta 1020

tagaaaagca aagcttgagt ttcctaaatg taagctttta aagtaatgaa cattaaaaaa 1080 aacccattat ttcactgtca tttaaa 1106

<210> 586 <211> 1963 <212> DNA <213> Homo sapiens

<400> 586 gggetgeete aettetgeet gatttgggaa gegetgeaag gacaacegge tggggteett 120 gegegeegeg geteagggag gageacegae tgegeegeae cetgagagat ggttggtgee 180 atgtggaagg tgattgtttc gctggtcctg ttgatgcctg gcccctgtga tgggctgttt cyctccctat acagaagtgt ttccatgcca cctaagggag actcaggaca gccattattt 240 300 ctcacccctt acattgaagc tgggaagatc caaaaaggaa gagaattgag tttggtcggc cettteecaq qaetqaacat qaaqaqttat qeeggettee teacegtgaa taagacttae 360 aacaqcaacc tettettetq qttetteeca geteaqatac agecagaaga tgeeccagta 420 gttetetgge tacagggtgg geegggaggt teatecatgt ttggaetett tgtggaacat 480 gggeettatg ttgtcacaag taacatgace ttgcgtgaca gagaetteee ctggaccaca 540 600 acgeteteca tgetttacat tgacaateca gtgggcacag getteagttt tactgatgat acccacggat atgcagtcaa tgaggacgat gtagcacggg atttatacag tgcactaatt 660 720 cagtttttcc agatatttcc tgaatataaa aataatgact tttatgtcac tggggagtct tatocacoga aatatotocc accettoca caceteatec atteceteaa ceetotoaga 780 gaggtgaaga tcaacctgaa cggaattgct attggagatg gatattctga tcccgaatca 840 attatagggg gctatgcaga attcctgtac caaattggct tgttggatga gaagcaaaaa 900 aagtacttcc agaagcagtg ccatgaatgc atagaacaca tcaggaagca gaactggttt 960 gaggeetttg aaataetgga taaactaeta gatggegaet taacaagtga teettettae 1020 ttccaqaatq ttacaqqatq taqtaattac tataactttt tgcggtgcac ggaacctgag 1080 gatcagettt actatotgaa attittotca eteccagagg tgagacaage catecacgtg 1140 1200 qqqaatcaqa cttttaatqa tqqaactata qttqaaaaqt acttqcqaqa aqatacaqta cagtcagtta agccatggtt aactgaaatc atgaataatt ataaggttct gatctacaat 1260 1320 ggccaactgg acatcatcgt ggcagctgcc ctgacagagc gctccttgat gggcatggac tggaaaggat cccaggaata caagaaggca gaaaaaaaag tttggaagat ctttaaatct 1380 gacagtgaag tggctggtta catccggcaa gcgggtgact tccatcaggt aattattcga 1440 ggtggaggac atattttacc ctatgaccag cctctgagag cttttgacat gattaatcga 1500 ttcatttatg gaaaaggatg ggatccttat gttggataaa ctaccttccc aaaagagaac 1560 atcaqaggtt ttcattgctg aaaagaaaat cgtaaaaaca gaaaatgtca taggaataaa 1620 aaaattatet titeatatet geaagattit titeateaat aaaaattate etigaaacaa 1680 gtgagetttt gtttttgggg ggagatgttt actacaaaat taacatgagt acatgagtaa 1740 quattacatt atttaactta aaggatgaaa ggtatggatg atgtgacact gagacaagat 1800 gtataaatga aattttaggg tottgaatag gaagttttaa tttottotaa gagtaagtga 1860 agagtgcagt tgtaacaaac agagctgtaa catctttttc tgccaataac agaagtttgg 1920 catgccgcga aggtgtttgg aaatattatt ggataagaat agt 1963

<210> 587 <211> 1612 <212> DNA

<213> Homo sapiens

<400>	587					
cccacgcgtc	cgcccacgcg	tccgggccac	acgcctcagc	cagccccggc	aagggcctat	60
caggggtggg	teggggcate	cgagcgggtt	tgacggaagg	agcggcggcg	acggaggagg	120
aggatggagg	cggtggtgtt	cgtcttctct	ctcctcgatt	gttgcgcgct	catcttcctc	180
teggtetact	tcataattac	attgtctgat	ttagaatgtg	attacattaa	tgctagatca	240
tgttgctcaa	aattaaacaa	gtgggtaatt	ccagaattga	ttggccatac	cattgtcact	300
gtattactgc	tcatgtcatt	gcactggttc	atcttccttc	teaacttace	tgttgccact	360
tggaatatat	atcgatacat	tatggtgccg	agtggtaaca	tgggagtgtt	tgatccaaca	420
gaaatacaca	atcgagggca	gctgaagtca	cacatgaaag	aagccatgat	caagcttggt	480
ttccacttgc	tctgcttctt	catgtatctt	tatagtatga	tcttagcttt	gataaatgac	540
tgaagctgga	gaagccgtgg	ttgaagtcag	cctacactac	agtgcacagt	tgaggagcca	600
gagacttctt	aaatcatcct	tagaaccgtg	accatagcag	tatatattt	cctcttggaa	660
caaaaaacta	tttttgctgt	atttttacca	tataaagtat	ttaaaaaaca	tgaattgagt	720
ttctgtagat	ttctagttct	caactttagc	ctgaacgcca	acacttgaag	gtgtttttca	780
tcctctgtat	gttgaaggtg	gttatttgta	tgtaggaaca	ggactgccat	cccagctttg	840
catgccaaag	aaataaagaa	cacactttaa	agggcaaact	gaagagatga	gcgagcaaag	900
gtgcccttca	ggtctactga	aaagttagag	tacaaaacaa	cactgttgat	ctggacaaaa	960
gaagaaaaat	tacccttttt	gcttgtgttg	tgacaacttc	atttaatatg	gtttaaagat	1020
ttatgagact	gtcagctaaa	agtcttttca	caagaatgtc	aacagagaat	ggcatctcaa	1080
aatatatata	tttctttgca	caatttgtga	aaccttataa	gccattttcc	ccaggtacaa	1140
tgtagttcct	gctgatagaa	aggaaatatt	ttgtcaagag	ctttcattta	aaagctacta	1200
cctccacaat	cacccccaaa	cccagaaaat	ccccactggc	tcttgccagt	ctggttttcg	1260
tattgcagtt	attccaattg	tatttgatct	ccctgataac	gtattttcat	gggtttgggt	1320
agaagatgct	aatcagatta	gaagcaggaa	tagttatttg	ctgtctgtga	aattgagcct	1380
tttggtgcgc	cacgtggtgc	cagatcaaca	cttctatccc	tctgcactga	ccacgttgtg	1440
aactgggaga	cccaaatgca	agccatttca	tggacatagc	aatatacaac	caaactctgt	1500
tccttggagt	tatattgtaa	actcttgcag	gtgggagagc	agttcacctc	cttagctctg	1560
tttgccagct	cttacagggt	aaaataaacc	tgggcaattt	atcctcaaaa	aa	1612

<210> 588 <211> 1124

<212> DNA <213> Homo sapiens

<400> 588 tttttatatt tttaaatatt ttattttcct gttctttgtg aaaacatcaa taaatatcga 60 aacctctctg ctctaacaca gagggaaaca ctgcataatt aacattaaac aaggcagtat 120 gccttacaag aaagacataa aatgtccaag ggatatttag aacattttag ttcttaaagc 180 ttcaacatga gaaatgttga ccacacactg tgaaatcatt tcaataaata acaactgaca 240 ttcatcttta caqttacaaa atagacacac atacatttcc ctgccgtcac attgatctta 300 ctggccattt tottggattc ctcaqcctct atcacaqtgg ctgacatgtg atatgtcatc 360 acgaagaaat attaacaaat gactagagaa tatctgcaaa ccttctatct tcaaattaaa 420 tatgaatcag gattgaacta acttgggttt gacctaaaat aaacaataaa tataatggga 480 gagtgtgcaa gtagattcaa tcataacctt attttacaca taaaatatta acatagaatc 540 600 atgeteaaae acattaggeg caatecaggt qqeetetgea getgtgtete tettteetet 660 totqttoctq taaqqqcaqq qootoottca qqaacaqcca ccaataagct toctoottoo 720 ttctqqtcaq ttqqatttqc catttttcaq catcttttcq atqattttct taaccatggg 780 cgatgcgggg ttgagacaag ctttctgccc attcttgagt gtggctatga cttcggtttg 840 ggcgcagtgg ggtccggggg acttcacctt cacactttgg atgttcttga ggtgaattcc 900 ctgcagggtc tgcaagcact ggcagcgcag ttcagtggcc aggggcgctc ctgctgcgcg 960 ceggetggeg gecaecagga geaggaqeaq caqeqecaet egeaggagee ggggattget 1020 gggggeggeg gagagegtgg egegggeeat ggggeteage aggeggtteg ageggetgtg 1080

cgaggaggag agctggcaag gagctccqtq qcccqqqctc tgtc

1124

```
<210> 589
<211> 479
<212> DNA
<213> Homo sapiens
```

<400> 589

coggaattcc cqqqcqqacq cqtqqqqqct qacatqaqaq aatcqcttqa qcccaqqaqt 60 tegtggetge agtgagetat gattgtgeca etgcacteca gtetggggga cagaatgaaa 120 ctgtctcaaa aagagtaaat gagaccccga gagttggagc agtgccccct agtacacaga 180 aaagacaggg ctttgacacc ccctatctct ggtgttcttg gccctcaaca caggaaaaga 240 aaaaagccat ccaggaggag gaggagagag accaggcctt gcaggccaag gcgagcctga 300 ccateceget ggtgecegag acggaagatg accgcaaget ggcggetetg etgaagttee 360 acaccetgga etectacgag gacaagcaga aacttaageg gacegagate atcagecegt 420 totgggttoc ottttgcccc ggaatcogcc tocaacagca aggtcagegg eggeetgag 479

<210> 590 <211> 3015 <212> DNA <213> Homo sapiens

<400> 590

tgcacgccgg tcgcgcgcag catggccacc accgccacct gcacccgttt caccgacgac 60 taccagetet togaggaget tggcaagggt gettletetg tggteegeag gtgtgtgaag 120 aaaacctcca cgcaggagta cgcagcaaaa atcatcaata ccaaqaagtt gtctgcccgg 180 gatcaccaga aactagaacg tgaggctcgg atatgtcgac ttctgaaaca tccaaacatc 240 gtgegeetee atgacagtat ttetgaagaa gggttteact acetegtgtt tgacettgtt 300 accggcgggg agctgtttga agacattgtg gccagagagt actacagtga agcagatgcc 360 agccactgta tacatcagat tctqqaqaqt qttaaccaca tccaccaqca tqacatcqtc 420 cacaqqqacc tqaaqcctqa gaacctqctq ctqqcqaqta aatqcaaqqq tqccqccqtc 480 540 tttgctggca ccccaggtta cttgtcccct gaggtcttga ggaaagatcc ctatggaaaa 600 cctgtggata tctgggcctg cggggtcatc ctgtatatcc tcctggtggg ctatcctccc 660 ttctgggatg aggatcagca caagctgtat cagcagatca aggctggagc ctatgatttc 720 ccatcaccag aatgggacac ggtaactcct gaagccaaga acttgatcaa ccagatgctg 780 accataaacc cagcaaagcg catcacggct gaccaggctc tcaagcaccc gtgggtctgt 840 caacgatcca cggtggcatc catgatgcat cgtcaggaga ctgtggagtg tttgcgcaag 900 ttcaatgccc ggagaaaact gaagggtgcc atcctcacga ccatgcttgt ctccaggaac 960 ttctcagctg ccaaaagcct attgaacaag aagtcggatg geggtgtcaa gccacagagc 1020 aacaacaaaa acagtotogt aageccagoo caagagooog ogcoottgca gacggocatg 1080 gagccacaaa ccactgtggt acacaacgct acagatggga tcaagggctc cacagagagc 1140 tgcaacacca ccacagaaga tgaggacctc aaagtgcgaa aacaggagat cattaagatt 1200 acagaacagc tgattgaagc catcaacaat ggggactttg aggcctacac gaagatttgt 1260 gatecaggee teactteett tgageetgag geeettggta acetegtgga ggggatggat 1320 ttccataagt tttactttga gaatctcctg tccaagaaca gcaagcctat ccataccacc 1380 atoctaaaco cacacgtoca ogtgattggg gaggacgcag ogtgcatcgc ctacatcegc 1440 ctcacccagt acatcgacgg gcagggtcgg cctcgcacca gccagtcaga agagacccgg 1500 gtctggcacc gtcgggatgg caagtggctc aatgtccact atcactgctc aggggcccct 1560 geogracege tgeagtgage teagecacaq qqqetttaqq agattecaqe eqqaqqteca accttegeag ecagtggete tggagggeet gagtgacage ggcagtcctg tttgtttgag

gtttaaaaca	attcaattac	aaaagcggca	gcagccaatg	cacgcccctg	catgcagccc	1740
tecegecege	ccttcgtgtc	tgtctctgct	gtaccgaggt	gttttttaca	tttaagaaaa	1800
aaaaaaaaga	aaaaaagatt	gtttaaaaaa	aaaaggaatc	cataccatga	tgcgttttaa	1860
aaccaccgac	agcccttggg	ttggcaagaa	ggcaggagta	tgtatgaggt	ccatcctggc	1920
			gaggtgagct			1980
gacttagggg	gaccaggcaa	gaactctgac	agagctttgg	gggccgtgat	gtgattgcag	2040
ctcctgaggt	ggcctgetta	ccccaggtct	aggaatgaac	ttctttggaa	cttgcatagg	2100
cgcctagaat	ggggctgatg	agaacatcgt	gaccatcaga	cctacttggg	agagaacgca	2160
			gaagtggtgg			2220
acgttgctgt	actgtcttgt	ttagtgtaga	agggaagaga	attggtgctg	cagaagtgta	2280
cecgccatga	agccgatgag	aaacctcgtg	ttagtctgac	atgcactcac	tcatccattt	2340
			atattgaggc			2400
ggggagggt	tgttgctgct	ttgcttcgtg	ttttcttcta	acctggcaag	gagagagcca	2460
ggccctggtc	agggctcccg	tgccgccttt	ggcggttctg	tttetgtgct	gatctggacc	2520
atctttgtct	tgecttttca	cggtagtggt	ccccatgctg	accctcatct	gggcctgggc	2580
cctctgccaa	gtgcccctgt	gggatgggag	gagtgaggca	gtgggagaag	aggtggtggt	2640
cgtttctatg	cattcaggct	gcctttgggg	ctgcctccct	tettattett	cettgetgea	2700
cgtccatctc	ttttcctgtc	tttgagattg	acctgactge	tctggcaaga	agaagaggtg	2760
			gaagtataga			2820
atgggcatca	cecetecceg	catgtaaccc	aaaagaggtg	tccagagcca	aggettetae	2880
cttcattgtc	cctctctgtg	ctcaaggagt	tccattccag	gaggaagaga	tctataccct	2940
aaggcagata	ggcaaagaag	ataatggagg	agcaattggt	catggccttg	gtttccctca	3000
aaacaacgct	gcaga					3015

<210> 591 <211> 1414

<212> DNA

<213> Homo sapiens

<400> 591 cggcgctgcc gggtgaaatc gtaggacagt gaagatgctg ctggaattgt ccgaggagca 60 taaggaacac etggcettee tgeeteaagt ggacagegeg gtggtegeeg agtttggeg 120 gattgctgtg gaattcetga gaegeggege aaacecaaaa atctaegaag gegecgccag 1.80 aaaactcaat gtgagtagtg acactgteca geatggtgtg gaaggattaa cgtateteet 240 cactgagage teaaagetea tgatttetga actggattte caagactetg tttttgttet 300 gggattetet gaagaattaa acaaattgtt getteagett tatetggaca acagaaaaga 360 gatcagaacg attetgagtg aattgggeac caagcettee cagttateat aacettgaat 420 ggcgactaga tgtacagett gcaagtagaa gtctcaggca acagattaaa ccagcagtga 480 ctataaagct acacettaat caaaatggag atcacaacac caaagttctg cagacagacc 540 cagecaccet getecatttg gttcaacaac tggaacaagc attggaagag atgaagacaa 600 atcactgtag gagagttgtt cgcaacatca agtagtacca gttttaaggt tttaattcat 660 ttgaatcact tatgaattga tgatatacag caattacttt tcaaaattaa ttttttatta 720 atteatgatg ataaatacat agtatteete agtatetatt ceaagatact gaggteataa 780 tcagaagcta agctgggtgc agtggctcat gccagttate ccagcacttt gggaggccga 840 ggtgggcaaa tcatgaggtc aggagattga gacettectg gctaacatgg tgaaacecca 900 tetetactaa aaatataaaa aattageeag gtgtggtggc acgeatetat cagagteeca 960 getactcagg aggetgagge aggagaateg ettgaacetg ggaggtggag gttgcagtga 1020 getgagattg tgccactgca etccagcetg ggtgacagag tgagactcca tetcaaaaat 1080 1140

ttcctttcct ggtgctaact gtggtcttct tgacacatta agatgtattt tgtattttaa

gagteteatg etetacegtt gggaactage cagatggeca ttattttgta ttttaaatae

ataaatagga ttgaatcaac tagaaatgaa tctatatgtt ctgtatatat gaatgactat

cttgtttttg ctacttcttt tgactgctta attttattat tttcatcttt attgatcaaa

tttcccaata aaattcacaa tqtaatacta aaaa

1200

1260

1320

1380

1414

<210>	592	
<211>	314	
<212>	DNA.	
<213>	Homo	sapien

<400> 592

ggcacgagoa bchacctage acatogtgtg gccgoggot tgggaaattgg occagttat 60 occaccacaa bccaagaagg agaogtggt gtgggacttat totgtgatbc 120 cgagggacgg abctgctgte ogctgacggg gaggagttg octagtgatg tbcatctatat 1800 cttgtctcto ctagstcgto tctggtagag tbtatgctgto tctstgatat atotctaga gttctgetg cacgctcgtb tcggtagag tbtatgctgto tctstgatat atotctaga gttctgctg cacgctcgtb tcggtagtgt ctggtcgtbt gggacttt gggacttt gggacttt 314

<210> 593 <211> 2530 <212> DNA <213> Homo sapiens

<400> 593

tttttttttt ttaacaataa taaatettta ttgagatttt ttaacaaaat aatttttgaa 60 aacaaaaget cccacatgta aacaagaacg taaataagtt agatggcatt attatgtaca 120 ttcaagaatc aaaacatgtt ctggtaaaca ttccataatc cggtaaaatg ttttcaccca 180 tcactgttaa gagaaactgt gtattttata ctatcaataa caaaacctaa tctttgaaca 240 ttataaaatg gtttacggaa tataaactat acagtttacg tttttcattc ctcctagcag 300 atcogtggtc acatgtatac tgagtcctaa gatgtatttt gtcagtatta gcccaaaatg 360 tecaccatec caaattaacc aggttacaca tateteetee agtttttatg gtaggatgtg 420 ttagaaccca tatattacaa catcattttt caaaactaac ctaatcctaa attctattct 480 aactagtotg goaatectto attitateto cotgtotaca cattoattag ataccaaggo 540 aatttcacct taaaaaatac tgctaataca catttagata gtaatttctg gtaaaactgt 600 agtttattta tcaaaaaatg tgaattttta ttttagaaat gtaggtcaag cattgtcata 660 720 gttgtagtac ttaattgaga ataatggctt caatttggaa gattcaatat acacattaaa caaaattaaa cagtttaaat tataattcat ataattataa ttctcatttt tagatggcca 780 aaatatattg ttttcttact ataaaqtgtt atttattcat cgtctatttt tactaattat 840 attcaattca caqtaqtqac atcaaaqqqa caaqtcatca taqqtctqaq accaqqaaaa 900 cctqqtctqt tttaacaqaq qcqtqtctaa aataaqaqta catatttcaa ttaqqcccac 960 agagatagaa aagagccagg ataatctttg tattgaggcc ttgatttcag ttttaaatgt 1020 aattetttte tgecagetga aataatttaa agatgtgeac aataggtetg tgetatttaa 1080 ggcaggtgtc aagcacattt tgaaatttac caactagaat gttctcctaa tggaaaaaga 1140 aaaaagaaaa gttatgacag tttttgttta agacagatgt ttaaatagca ctcttctttt 1200 tgaccattta aaaataattt ggcagctgta accacctatg gtcataacac ataatcactt 1260 acaaaagaca agcaacagat acagaattaa cgatatactt ttaatatttt tacaaccctc 1320 tttaagttgg tgcctaatgg catttaacaa gatttttata ttcagtgaaa aagatttaga 1380 acataaactg acatgaagta aggaatataa tttctctgtg ccatgcaaaa gagaagtcaa 1440 ctttttacac atcatcactc ctaaacagtt ctaattaaaa tccaaactgt tcccattttt 1500 gcatcattgt cattetttgg caaaagatte taaaaaccca ggggttagga aacaactgtt 1560 cactcatggt tttccttttt tttttttttg caaaatacat gtgttttgta aaagaaatct 1620 geactgtget tggtttatac tacataatta taagtaagca aaatagtatg acttettttg 1680 actaatctac tootaaagoo ttgagttgoo gttcaatctc ttcatctgag attgtagoot 1740 ttgaagtaga ggcagatggt aagcttcgag cagctgatgg agctttggcc atctttccag 1800

tccaatttca	tcaagaactt	gattcacaat	atcctggctt	tcttcttcgt	1860
gtcaaagatg	tcatcaagtg	tatcattgat	catttcttca	gtcatttcca	1920
ttccttctgg	aaattctgca	tggtttgtaa	tgtcttttgt	ggatccatct	1980
tgcctgcatt	gtttttgctg	tggtagacat	tgctccagcc	atcttcattt	2040
cacttttgtt	tgtgtagaca	tagaagtaac	ttttgaactt	acagcaaaag	2100
ctgtttccgt	agatgcacaa	gttgtttggc	taaaactttg	caagcttect	2160
					2220
atctctgatt	atagccctct	gtgtacctcg	taactctcga	ttctgttcct	2280
atccacggtt	ttcttcttga	agagggacgc	catggttaaa	gactgcgccc	2340
gctcggcccg	gtccggccca	acgctggcaa	aggacaggag	gaaaaggaca	2400
gggttcgggg	tggcggagcg	gagagacagc	aggaggaggt	eggggtegee	2460
cgcggaaggc	ttgtatccgc	agctaccgca	gccgcgtcac	ccggagctca	2520
					2530
	gtcaaagatg ttccttctgg tgcctgcatt cacttttgtt ctgtttccgt cttggccatt atctctgatt atccacggtt accacggtt gctggcccg gggttcgggg	gtcaaagatg tcatcaagtg ttccttctgg aaattctgca tgcctgcatt gtttttgctg cacttttgtt tgttgagaca ttgttccgt agatgcacaa cttggccatt tcttaatt atcctcgatt atagccctct atcacggtt ttcttctga gctcggcccg tccggccca gggttcgggg tggcggagag	gicaaagatg toatcaagtg tatcattgat thootbrigg aaathotgoa tggittgtaa tgoctgoatt githitgidg tggitagoaat cactitigtt tgigitagaca tagaagtaac cigittcogi agastgacaas gitigitiggo citiggocatt ticitiaatti chaathooag atoctogata tatagocoto tgigitacog atocaoggit ticititiga agagggacg gotoggocog gicogocaa agogtuggaa ggitigggg tggoggadg gagagacgg	gicaaagatg teatcaagtg tatcattgat cattictea tbootbrigg aaattetgea tggittgtaa tgtottigt tgcotgcatt gittitgteg tggitagacat tgctocagce cactitigtt tgtgitagaca tagaagtaac tittigaacit ctgittcogi agatgacaas gitgittigg taaaacitig citggicatt tictitaatit ciaattocag ctgittitet atcotggita tatgoccote tgitaccog taactocga atccacggit ticticitga agagggacg catggitaaa gctoggcocg gicogcoca acgotggoaa aggacagag gggitigggg tggoggaagg gagagacga aggagaagag	becaatttea toaagaaett gattoacaat atoetggett tottotteg gtoaagaga toatcaagetg tatoattgat cattbettes gtoattscoa tocttotteg aaattotgoa toguttegtaa tgtotttig tgottgoatt gittitgotg tggtagaaat tgtottoagoc atottoattt tgottgoatt tggtagaca tagaagtaac titigaacit acagoaaaag otgittoogt agatgoacaa gittitgog taaaacittg caagotteot ottggocatt titottaatti chaattooag otgittitot tgittotota atototgatt atagocotc gitacotog taaactooga totgittoaa atocacggit titottottga agaggagaej catggitaaa gagtaggoc gotoggocog gicoggoca acgotgocaa aggacaggag gagaaagac gagttoggog tggoggaagg gagaagaaga aggaggag tggggsoc ogcggaagge tigiatoog

<210> 594 <211> 903

<212> DNA

<213> Homo sapiens

<400> 594 ttqqtaatcc aatttqqaqa qtqqccactq aaatcaatta aaaatqttta ttctqaaaqa 60 tgctactata aagtttatag actcaaatgc ttataatgct taatcaaaac taaatttaca 120 aaaaaaccta gaaacaggtt gaattgaaac ctgtagatca ttttataata ttcatgagca 180 acaacttttt taaagacaaa ggctactgtt ttaatataaa ttaagagctt taacatgatc 240 tocctttagt gottttaatt gtcacatggc tgtaaaccaa agacccctcc aaattttaaa 300 tgatcactga tactacttga gcagaaattc tcaggtgtca gtacttttaa tgttgtgtac 360 atcaaattac agtacaaaga tgactataaa caagatgcag coctcggttt ccatgaacag 420 cacactatta cagtaaacca agtttatatt ccaccatcaa gtgtggctct cccatgactt 480 egetttgtga tggateatta agaatateet caaateeaat agteteatea ttaceetea 540 aaacatccag tgaaagattt gagcttgaaa gaaatggaag acgctgaacc tgctgcactg 600 cottgaattc catctgtaat tttagcggag caaatagacc ctgaatgttt ctcagtgtgg 660 aaaaattcat tttatcttgg ttgagctgga aatttttttc tgataattca aggggatgac 720 taggcaaaag ttcatttttc acacaagaaa aacctttccg aagaagatca tgactttcaa 780 aaggtocact tgctgaaagt tcagtaactg gaatactgtc ctttagetca gatccaagtc 840 ctetggcatt catcttecge agetetgega acageetete tgeecegtta cegteagteg

900

903

<210> 595

acc

<211> 879 <212> DNA

<213> Homo sapiens

<400> 595

ggcacgagcg gcacgagccg ggctcggccg acccggcggg gatctagggg tgggcgactt 50 cgcgggaccg tggcgcatgt ttcctgggag ttactgatca tcttctttga agaaacatga 120 agttacacta tgttgctgtg cttactctag ccatcctgat gttcctgaca tggcttccag 180 aatcactgag ctgtaacaaa gcactctgtg ctagtgatgt gagcaaatgc ctcattcagg 240 agetetgeca gtgccggccg ggagaaggea attgctcctg ctgtaaggag tgcatgctgt 300

```
qtcttqqqqc cctttqqqac qagtgctgtg actqtqttqq tatqtgtaat cctcqaaatt
                                                                    360
atagtgacac acctccaact tcaaaqaqca caqtgqaqga qctgcatqaa ccqatccctt
                                                                    420
ctctcttccq qqcactcaca qaaqqaqata ctcaqttqaa ttqqaacatc qtttctttcc
                                                                    480
ctqttqcaqa aqaactttca catcatqaqa atctqqtttc atttttaqaa actqtqaacc
                                                                    540
agccacca ccagaatgtg totgtoccca gcaataatgt toacgcgcct tattocagtg
                                                                     600
acaaaggtaa ctgccaacag ttgacttttt ccattccgcc ccctcatgtg gtctgtccat
                                                                     660
gtaatctata aaacctatat aagaccatct tttggaggag ccttttggtt ttgaatttgt
                                                                    720
atcatctttg ctttcaatat ttaatttttt cctttttact tatttatatt tgctaaaaga
                                                                    780
ttacctactt tattattact ctacaaataa ccagcttttg cttttattgc ttggcttagt
                                                                    840
tggctttttt aatttgcttt ttaaaattac tgtttttat
                                                                     879
```

<210> 596 <211> 816

<212> DNA <213> Homo sapiens

<400> 596
tttttttttt ttgagagtga caaaaaggtt tattcctgtg cttctcgcag cattaggcag gggataaaa c ttggagagaa gggcctcgt gtggaggtgg agggactcct gtgggcttca

cictggtagg aggaagoat oagggcaggc cittaggctg tigctctgg cagggggtgg gggsgcaggg gttcgaagg gctcacagtg gggsccctls tittggcacag gttcggaagg gcoccaggca gacatgaatt ctcotgagac ttgagtagg ttgctgaagg gcoccaggca gacatgaatt ctcotgagac ttgagtagg gagcagaagaag ggcagaagag gacaagttggg gagcagaagaag gccaaggga caggggaatt cttcaccaca agctcacaat acagcgcact gtagatytgg tgcagcacat ctcggatggg tccacagcc aagtcagtat tcatgacaca tttgatccca ggttgggcgtct cgtagtagg gagtttgtaa cggctagttg ggaaggccag gaagccatcc ttcatgtcta gcggggacat cttgctgaca aacgacgga tagaagaag catcccgtac atcagcttaat actccctct cttgggatct ctttgcggtg cattcgtgg tagagcaaa cactccatt ccggtcaaac aggtacaagt tgtggaagac cattcgcagg cagaggagt tgagacccac tctgggatcac tctgggcacac cttgcgcaga gagagcatct tcttgcggtcg gttcccgaac coccacatc tttgggctcg gttcccgaga

60

120

180

240

300

360

420

480

540

600

660

720

780

816

ccacagoett ccaaccaggt ggggacccca cccacg

<210> 597 <211> 1575 <212> DNA

<213> Homo sapiens

<400> 597

tttegteeeg egeeeggaet ttgecategg eggggeagte gegggatgeg eeegggagee 60 acagectgag geeetcaggt etetgeaggt gtegtggagg aacetageac etgecateet 120 cttccccaat ttgccacttc cagcagettt agcccatgag gaggatgtga ccgggactga 180 gtcaggagcc ctctggaagc atggagactg tqqtqattqt tgccataggt qtqctqgcca 240 ceatetttet ggettegttt geaqeettqq tqetqqtttq caqqeageqe tactqeeqqe 300 cgcgagacct gctgcagcgc tatgattcta agcccattgt ggacctcatt ggtgccatgg 360 agacccagte tgagccctet gagttagaac tggacgatgt cgttatcacc aacccccaca 420 ttgaggccat tctggagaat gaagactgga tcgaagatgc ctcgggtctc atgtcccact 480 gcattgccat cttgaagatt tgtcacactc tgacagagaa gcttgttgcc atgacaatgg 540 getetgggge caagatgaag actteageea gtgteagega cateattgtg gtggeeaage 600

ggatcagccc	cagggtggat	gatgttgtga	agtcgatgta	ccctccgttg	gaccccaaac	660
tcctggacgc	acggacgact	gccctgctcc	tgtctgtcag	tcacctggtg	ctggtgacaa	720
ggaatgcctg	ccatctgacg	ggaggcctgg	actggattga	ccagtctctg	teggetgetg	780
aggagcattt	ggaagtcctt	cgagaagcag	ccctagcttc	tgagccagat	aaaggcctcc	840
caggccctga	aggetteetg	caggagcagt	ctgcaattta	gtgcctacag	gccagcagct	900
agccatgaag	gcccctgccg	ccatccctgg	atggctcagc	ttagccttct	actttttcct	960
atagagttag	ttgttctcca	cggctggaga	gttcagctgt	gtgtgcatag	taaagcagga	1020
gateceegte	agtttatgcc	tcttttgcag	ttgcaaactg	tggctggtga	gtggcagtct	1080
aatactacag	ttaggggaga	tgccattcac	tctctgcaag	aggagtattg	aaaactggtg	1140
gactgtcagc	tttatttagc	tcacctagtg	ttttcaagaa	aattgagcca	ccgtctaaga	1200
aatcaagagg	tttcacatta	aaattagaat	ttctggcctc	tctcgatcgg	tcagaatgtg	1260
tggcaattct	gatctgcatt	ttcagaagag	gacaatcaat	tgaaactaag	taggggtttc	1320
ttcttttggc	aagacttgta	ctctctcacc	tggcctgttt	catttatttg	tattatctgc	1380
ctggtccctg	aggcgtctgg	gtctctcctc	tcccttgcag	gtttgggttt	gaagctgagg	1440
aactacaaag	ttgatgattt	cttttttatc	tttatgcctg	caattttacc	tagctaccac	1500
taggtggata	gtaaatttat	acttatgttt	caaaaaaaaa	tcatcaactt	tgtagttcct	1560
cagcttcagt	cgacg					1575

<210> 598

<211> 1166 <212> DNA

<213> Homo sapiens

<400> 598

```
ttttttttt ttacagaatt ccccaaactt taatgctgtg ctctgaaaag ggaggctgga
                                                                   60
ggttgtggtg ggtcacagtg ttgctgacac ctctggcctc caqccctqca tccctagqca
                                                                   120
ccatgtgacc aggcagtgag aaggacgggg cctcactccc atgccagact gctcctcggg
                                                                   180
ctgagcagga cctgaagctc tcagggcttc caccaaagcc cagcaaactt gggggaggcc
                                                                   240
tgagggggca tcagcagtcc ttaaaggcct gagcttgcaa cactcaggca ggactcggct
                                                                   300
gagggcctct gtggtgccac catggggtag gaggtaaaga gagaccctgg ttccagcctg
                                                                   360
ggaaccagtg ggtgccctga agggagggga ggcctcaggg agttcgggac aggagtgtgc
                                                                  420
atggtactgg geggeceatg ggggeteetg geetettggt teaggeaate cetgagetgg
                                                                  480
ggacacattc catcttaggt ccaagagacg gaggtcagga gcatccctag aacgacctcc
                                                                  540
caggcacgag gaaggcccgg ggcagggccg ggcgcagcgt ggctggcttc aqtaccctcg
                                                                   600
ggcatcttga ctcctqccct ctqqgactqc aaaqqqatct gcqqqcqcct ctqctgagtc
                                                                   660
astegtetgg taggeactae ggteetgaga agacceaagg asaccagtgt ggaccaggag
                                                                   720
ctcaccccc cgctcccqgt acatqtqqta qacqaaqcaq caqqaqaqcq qcttqaqcaq
                                                                   780
caagetgagg atggecatge ecacqeeaaa geggeeegtg teegtgagge tgaeeegegg
                                                                   840
                                                                   900
gtagaagatg ctgatgtgca cgatgtccag gaagatggtg gccagcaagc cacccagaaa
                                                                  960
catgettatg gegtegatgg agtecegetg agecacagee cacaegeeca aggecaggat
                                                                  1020
ggtgaagttg gcccaggcat aggagcctga gaatacaatg cagccccagg ttgtcagcag
ccagtgacct aggagaatca ccttcaggtt cacagcaggc agctccatcc cgactcaggc 1080
egagggeace tgegeegeag eeqeggggg etectagget eegaactegg ggaacaaact 1140
tgeceggeee egeceegeee gttgeg
                                                                  1166
```

<210> 599

<211> 716

<212> DNA

<213> Homo sapiens

<400> 599 tttttttttt ttgaaggaaa taagaggagg ttcccctcgt acgttcattc tgtttattta 60 tttgtgtgcg cacceggcte ceegeagect ceaccectee egegteeege tttcaqaaag 120 gaacgcggcc ctcagctccc tccggaagag gccccggggt caggggctgc agccggqtcc 180 cogtgogteg geocageteg tecageaceg cetteteett etggaacate tgetgecaet 240 ctgcctccgt qccqtqtqtq aatcccaqca aqtqacaqaq tccqtqqqtq qccqtcacaq 300 teaggacqte attqtaatet teattttett tacactgatg gaagatatac tecacteeta 360 ggaaaatgtc tcccaaattg tagtcatctg gaaaatcagg ctggggaaat tcacctqctt 420 tcagatgete atgaaatgga aaagaaagca categgttgg gacattteta tetetgtaga 480 ttetattaat gtgetgaata ttettgttgt caacacagat gatececagg teaastttet 540 quacturetaa aatuutuutt acaatutuga tuttautgug aagtqqqqqt etcetqatqq 600 ggatgacteg etgeagattt etaateacea aacteattte aggaagaata accaqeeett 660 taaaaatgtt tgcaacggaa ccggtgtctg gacccagcaa aggacgcgaa gctggc 716

<210> 600 <211> 802 <212> DNA <213> Homo sapiens

<400> 600 ctccgcaatg ccttggacgt cctgcataga gaggtgccca gagtcctggt caacctcqtq 60 gactteetga accecactat catgeggeag gtqtteetgg gaaacecaqa caaqtgeeca 120 gtqcaqcaqq ccaqcttqaa ccacttgqaa gcaaaacaqa qaccctqqac ctqaqaqcaq 180 agatqcccat cacctqtccc actcagaatq aqcccttcct qaqaacccct cqqaataqta 240 actacacqta ccccatcaaq ccaqccattq aqaactqqqq caqtqacttc ctqtqtacaq 300 agtggaaggc ttccaatagt gttccaacct ctgtccacca gctccgacca gcagacatca 360 aaqtqqtqqc cqccctqqqt qactctctqa ctacaqcaqt qqqaqctcqa ccaaacaact 420 ccaqtqacct acccacatct tqqaqqqac tctcttqqaq cattqqaqqq qatqqqaact 480 togagactca caccacactg cocaacattc togagaagtt caaccettac etecttoget 540 tetetaceaq eacetqggag gggacageag gaetaaatgt ggcageggaa ggqgccagag 600 ctagggacat gccagcccag gcctgggacc tggtagagcg aatgaaaaac agccccgaca 660 tcaacctgga gaaagactgg aagctggtca cactcttcat tgggggcaac gacttgtgtc 720 attactqtga qaatccqgag qcccacttqq ccacqqaata tqttcaqcac atccaacaqq 780 ccctggacat cctctctgag ga 802

```
<211> 859
<212> DNA
<213> Homo sapiens
<220>
<221> misc_feature
<222> (1)...(859)
<223> n = a,t,c or g
```

<400> 601

<210> 601

gtggtggaat	tcctctggag	caggaggccc	agtggctctt	ctgacccaag	gccccgccgt	60
ccagcttcta	agtgccagat	gatggaggag	cgtgccaacc	tgatgcacat	gatgaaactc	120
agcatcaagg	tgttgctcca	gtcggctctg	agcctgggcc	gcagcctgga	tgcggaccat	180
geceettge	agcagttctt	tgtagtgatg	gagcactgcc	tcaaacatgg	gctgaaagtt	240
aagaagagtt	ttattggcca	aaataaatca	ttctttggtc	ctttggagct	ggtggagaaa	300
ctttgtccag	aagcatcaga	tatagcgact	agtgtcagaa	atcttccaga	attaaagaca	360
gctgtgggaa	gaggccgagc	gtggctttat	cttgcactca	tgcaaaagaa	actggcagat	420
tatctgaaag	tgcttataga	caataaacat	ctcttaagcg	agttctatga	gcctgaggct	480
ttaatgatgg	aggaagaagg	gatggtgatt	gttggtctgc	tggtgggact	caatgttctc	540
gatgccaatc	tetggettga	aaggagaaga	cttggattct	caggttggag	taatagattt	600
ttccctctac	cttaaggatg	tgcaggatct	tgatggtggc	aaggagcatg	aaagaattac	660
tgatgtcctt	gatcaaaaaa	attatgtgga	agaacttaac	cggcacttga	gctgcacagt	720
tggggatett	caaaccaaga	tagatggctt	ggaaaagact	aactcaaagc	ttcaagaang	780
	gcaacagacc					840
acaaaatgaa						859

<210> 602

<211> 2047

<212> DNA

<400> 602

<213> Homo sapiens

tcaataccgc gtccgcgccc aggcggctgc ccgtgacctg cctgggcgcg gggaactgaa 60 ageeggaagg ggcaagaegg gtteagtteg teatgggget gtttggaaag acceaggaga 120 agcegeccaa agaactggte aatgagtggt cattgaagat aagaaaggaa atgagagttg 180 ttgacaggca aataagggat atccaaagag aagaagaaaa agtgaaacga tctgtgaaag 240 atgetgecaa gaagggecag aaggatgtet geatagttet ggecaaggag atgateaggt 300 caaggaagge tgtgagcaag etgtatgcat ecaaagcaca catgaactca gtgetcatgg 360 ggatgaagaa ccagctegeg gtettgegag tggetggtte cetgeagaag agcacagaag 420 tgatgaagge catgcaaagt cttgtgaaga ttccagagat tcaggccacc atgagggagt 480 tgtccaaaga aatgatgaag gctgggatca tagaggagat gttagaggac acttttgaaa 540 gcatggacga tcaggaagaa atggaggaag aagcagaaat ggaaattgac agaattctct 600 ttgaaattac agcaggggcc ttgggcaaag cacccagtaa agtgactgat gcccttccag 660 agccagaacc tccaggagcg atggctgcct cagaggatga ggaggaggag gaagaggctc 720 tggaggccat gcagtcccgg ctggccacac tccgcagcta ggggctgcct accccgctgg 780 gtgtgcacac actcctctca agagctgcca ttttatgtgt ctcttgcact acacctctgt 840 tgtgaggact accattttgg agaagggtet gtttgtetet tttcattete tgcccaggtt 900 960 ttgggatcgc aaagggattg ttcttataaa agtggcataa ataaatgcat catttttagg 1020 agtatagaca gatatatett attgtgggga ggggaaagaa atecatetge teatgaagea 1080 cttctgaaaa tatagqtgat tgcctgaatg tcgaagactc tacttttgtc tataaaacac tatataaatg aattttaata aatttttget ttagcacttg qeeccattgt agattgeeet 1140 qtqcaqtaaa ctttcaaqqt qtcqqctqcc ccaqattqct tcatttqctq qqtqtqgaaa 1200 qaqttqctat qqccaqqcat atqqqatttq qaaqctcaqc aqaaqtqact tctqctctgt 1260 ggttgctgct ccccggcttt cacagacatg gtatggcagc cattctttta tctatttaac 1320 caagaggatg etggggaatt gtgetgettg teetgttgge tggtggetge attatgteet 1380 ggggtgtgca tgtgggtcta tttagagctt ctgtcccttc cttcccattg caagttgcac 1440 1500 ccagatgaga cagctqtagt actagqtctc tttcacctct cattgcctgt ccctgcttcg agetggttgt ettgtgcgtg ggacatggge ettectatet gtgttttete aaagteagga 1560 getgaccagg ageacactaa ggtgtggtca tgcatcataa ceaacattca etcatetggg 1620 acattettaa gatacattta taaateattt cageagtagt actttgtatg tgttgagagt 1680 ttacagaget etttgacata egegatetta gtetttacaa ataaggaaaa eageteagtt 1740 tgggaagtat cagagatggg attcaaaccc agatectetg gtccaagttg tatgtgcact 1800 gaactaatca ggcaggaaaa aagcccaqcc actgtctcac agattgtttt ttgtatattg 1860 1920 tagcaaaatc ctgaaacaat ggggtccttc caqtctcatc atacaaaatg gcaatcttgg

1980 2040

ctgggtgcgg tggttcatgc ctataatccc aqtgctttac aaggctgagq caggaqgctc

tcttgagaat aggagttcaa gaccagcctg ggcaacatag caagatcctg tctctccaaa

aaaaaaa 2047

<210> 603 <211> 1927 <212> DNA <213> Homo sapiens

<400> 603 ageggtggaa ttegateatg gaacttgeae tgetgtgtgg getggtggtg atggetggtg 60 tgattccaat ccagggeggg atcctgaacc tgaacaagat ggtcaagcaa gtgactggga 120 aaatgoccat ceteteetae tggeeetaeg getgteaetg eggaetaggt ggeagaggee 180 aacccaaaga tgccacggac tggtgctgcc agacccatga ctgctgctat gaccacctga 240 agacccaggg gtgcggcatc tacaaggact attacagata caacttttcc caggggaaca 300 tccactgctc tgacaaggga agctggtgtg agcagcagct gtgtgcctgt gacaaggagg 360 tggcottctg cctgaagcgc aacctggaca cctaccagaa gcgactgcgt ttctactggc 420 ggccccactg ccgggggcag acccctgggt gctagaagcc cacaccctct accctgttcc 480 tcagcatgga getctggcat ccccacctca gtatctaacc tgaaccagcc tggctttca 540 aacactcogg ggggaggtag teccageete eeeeggaace etetaceaat geettetgae 600 ottotgaago tttocgaato eteccagttg aggeagtage tgtgteetet gagggtggat 660 gggaatcttg ggagaagccc aagcaaggga gccctcagag gtggtgtttg gaccaaagca 720 toggggtggg ggaggggtet geogetgtee eccacetget ggececettg teetteetea 780 occoctocaa tatagtotog gagotacaac ogcagoagee actataaagg gcaatattga 840 tetttetgte catgtggete tatettttaa aaceteaagg ceetecactg teetaagata 900 aagcetetea taggeactgg ggaceetgea cagtetggee atgtgaceet etecceagge 960 aagototgaa gtocotgoag gtggaggooa tgcotgtott aaactoagtt gcatcootgg 1020 tgcccaaagc aacaccagaa ccaagaagga gctccataaa tccttcttgg gtgaagccta 1080 gacaaagccg ccaggtottg togotocagg caccagagcc ttgagtactt totoctgct 1140 ccaggcattg gctcagggtg aattacaagg ggctactgaa tggctattac tttcatcacg 1200 actgatecce acctecteag ggtcaaaggg ctactttetg gaagteteec caggetgact 1260 cotteteect gactgcaagg getcactege tectecaage teccacaatg etteatoget 1320 ctgccgctta cctagcttgg cctagagtgg caaatggaac ttctctgatc tcccccaact 1380 agactggage cecegaagga tggagaccat gtetgtgeca tetetgttte ecetgtttte 1440 ccacatacta ggtgctcaat tcatgcctgt gaatggcgtg agcccataat ggatacacag 1500 aggittqcaqc agatqqtgtg ggtacctcac ccagatatet tecaggecca aggecetet 1560 ccctgagtga ggccaggtgt tggcagccaa ctgctccaat ctgcctcctt cccctaaata 1620 ctgccctggt ctagtgggag ctgccttccc cctgccccac ctctcccacc aagaggccac 1680 ctqtcactca tqqccaqqaq aqtqacacca tqqaqqqtac aattqccaqc tcccccqtqt 1740 ctqtqcagca ttqtctqqqt tqaatqacac tctcaaattq ttcctqqqat cqqqctqaqq 1800 ccaqqcctct cctqqaacca cctctctqct tqqtctqacc ccttqqcta tccaqttttc 1860 1920 ctggttccct cacaggtttc tccagaaagt actccctcag taaagcattt gcacaagaaa aaaaaaa 1927

<213> Homo sapiens

<400> 604

<210> 604 <211> 630 <212> DNA

caaccccgcc	gccggggaca	tgtccaaccc	ctgaagccgg	aggaacgggc	cagtcagact	60
gogocogaca	ggtatattga	aaagtetgat	tcagttacaa	tcagtgtatg	gaatcacaag	120
aagatecata	agaaacaagg	tgctggattt	ctccgttgtg	ttcgtctttt	tccagtgcca	180
tcaaccacct	caaagacact	ggttatcaga	ggttggattt	atgcaaactt	gggccaaagg	240
acagttagaa	gacagtagct	gaagaagcat	ctgtagggaa	tccagaagga	gcattcatga	300
agatgttaca	agcccggaag	cagcacatga	gcactgaget	gactattgag	teggaggege	360
cctcagacag	cagtggcatc	aacttgtcag	gctttgggag	tgagcagcta	gacaccaatg	420
acgagagtga	tgttagcagc	gcactaagtt	acatcttgcc	ttatctctca	ctgagaaatc	480
taggtgcaga	atcaatattg	ttaccgttca	ctgaacagct	attttcaaat	gtacaagatg	540
gagatagget	cctgagtatt	ttgaaaaaca	atagaaagag	cccctcacag	tecageette	600
taggtaacaa	atttaaaaac	aaaatatttg				630

<210> 605 <211> 783 <212> DNA <213> Homo sapiens

<400> 605 totgoctotg accotoctto togotgotoc otttgoccat otgotoctco cacotgocca 60 tgaccaaage cegtgetgge accetggece agetetgagt cetgggacce teggteetet 120 ctcctgggcc atggccaact caggcctcca gctcctgggc tacttcttgg ccctgggtgg 180 ctgggtgggc atcattgcta gcacagccct gccacagtgg aagcagtctt cctacgcagg 240 300 cagcetgggg etgeccagag actgtgggtg gagetgeetg etgeacteag eagtgeggte 360 agagaagggc ttttggtctt gaagtccagg taccatcccc ccttagcata cagggggaag 420 ggcctgagag gaatgtaagg aaaccagccc agatcagtcc caaggccaga gtcctttgtc 480 ctacatetee etgaaceaga gtgtgeeetg ceceteatge teagacetet cecaceceaa 540 accetetece gggacteagt etecetggee actgegtate aggettetgg ggaaageate 600 catcacagaa cotcoccttc cotgocacgc accttccttg gocageteca ttotggcotc 660 ctccaccacc tgccttgtga ccacatctcc caccacgtcc ccagatctca agaacgcage 720 teagettete ettegagett gaetettaag agggaaaagt gaeggaaace aatteagatg 780

783

<210> 606 <211> 2513 <212> DNA <213> Homo sapiens

<400> 606

aag

egacecaege gteeggeege egetgetaca geegeegeeg eegetgttge egeggettgt 60 tattettaaa atggegeege tagaeetgga caagtatgtg gaaatagege ggetgtgeaa 120 gtacctgcca gagaacgacc tgaagcggct atgtgactac gtttgtgacc tectettaga 180 agagtcaaat gttcagccag tatcaacacc agtaacagtg tgtggagata tccatggaca 240 gttttatgac ctttgtgaac tgttcagaac tggaggtcag gttcctgaca caaactacat 300 atttatgggt gattttgtag acagaggtta ctatagtttg gagaccttca cttaccttct 360 Egcattaaag gotaaatggo otgatogtat tacacttttq ogaggaaatc atqaqaqtag 420 acagataaca caggictaig galittaiga tqaqtqccaa accaaataig qaaatqctaa 480 tgcctggaga tactgtacca aagtttttqa catqctcaca qtaqcaqctt taataqatqa 540

			tectgatate			600
aaccatcgaa	cggaatcagg	aaattcctca	taaaggagca	ttttgtgatc	tggtttggtc	660
			cagtccccga			720
			caacaactta			780
			gtttgatgag			840
			tattgcttcg			900
			agttccagat			960
cagaacgaca	acgccatatt	teetttgagg	ccttcgccca	tectgetgae	ccatttttct	1020
gccctcttct	taccccaatt	ttcttgtatt	accetetaca	atatactttt	tattgagcac	1080
			tttttttta			1140
			tttttctatc			1200
			aaatgtctta			1260
agctcttgct	tatttactgg	tctgggaaac	aggatgtgtt	teetttttt	aaaagccaat	1320
tgacagatta	cacctaaata	ctcctccttt	tgtatcattc	agccttttgt	tttagtttgg	1380
taagttttaa	gaaatttcag	cagcaaagtt	gttattcagt	gggcacgatg	gactccaaat	1440
gcctcaagtt	atgtatacct	gtcccagatg	taaacttcat	tgtcctttgt	tggatgatat	1500
tttaaatgga	tataaaataa	attggtctaa	agggctgccc	tecttgttgt	gtttttaaat	1560
tttagttaaa	aactgctaca	gcttatgact	ttgtacttta	agataattgt	attgatcttt	1620
tttcagattc	cttgtatttt	ttaataaagt	aatcttaaat	aaaactcaga	taggttaagt	1680
gttagaaatt	ttaaacagct	tacattgtta	gcgtaaagtt	atcttttctt	ttttcctaat	1740
cagagttett	gaccctttgg	ttattgagtt	taaaacttca	attgaaattc	aatagtattt	1800
atttttgaaa	aaaatcacta	aactgtgcct	aaagaacata	actgccatat	taatgttttg	1860
gtttatatcc	tctatagtaa	tagaaaaaca	tttaatactt	gtaatgctga	tgtgttaatt	1920
tgataccagt	tgagtagaat	gtgatcaatc	cagtttacaa	tctatcatga	gtattattaa	1.980
ctaaaatcta	tgtgcttttc	aataggaatc	attettetet	tgctgtaaca	cttgacctta	2040
acttttagaa	agtgttcatt	tttaaactgc	aactggaaag	gttgaaaagt	taggactctt	2100
gtatttgtga	actgtaatct	gaagcagatt	atttaaagtg	tagaaaaaga	aacaagttct	2160
tttttgcaaa	ggtctgtgat	accatatttc	agctttgtgt	aagtaatttg	aatatccaaa	2220
gggttgggat	gatcagttct	gaatatgcaa	ctgtccactt	aataaggaca	agtattccag	2280
tatctcttat	gactgtagtc	ataaatgatg	ttggaatgta	cattttgtga	aatagttggt	2340
atccctttac	tatgattaat	ttttgttatt	ccaggaaata	cttgtgaage	cagccaatta	2400
			tttgaaaacc			2460
agaacttcca	ggttacctaa	aaatgcaata	aaaatcttta	tagtctaagc	ttt	2513

<210> 607 <211> 768 <212> DNA

<213> Homo sapiens

<400> 607 gattattaaa gettegeegg ageegegget egteetteea eteegeeage eteegggaga 60 ggagcegeac ceggceggec eggceccage eccatggace teegagcagg ggactegtgg 120 gggatgttag cgtgcctgtg cacggtgctc tggcacctcc ctgcagtgcc agctctcaat 180 cgcacagggg acccagggcc tggcccctcc atccagaaaa cctatgacct cacccgctac 240 ctggagcacc aacteegeag cttggetggg acetatetga actacetggg cececettte 300 aacgagecag acttcaaece teecegeetg ggggcagaga etetgeccag ggecactgtt 360 gaettggagg tgtggegaag cetcaatgae aaactgegge tgaeccagaa etaegaggee 420 tacagocaco ttotgtgtta ottgogtggo otcaacogto aggotgocac tgotgagotg 480 egeogeagee tggeceactt etgeaceage etceagggee tgetgggeag eattgeggge 540 gtcatggcag ctctgggcta cccactgccc cagccgctgc ctgggactga acccacttgg 600 acteetggcc etgeecacag tgactteete cagaagatgg acgacttetg getgetgaag 660 gagetgeaga eetggetgtg gegeteggee aaggaettea aeeggeteaa gaagaagatg 720 cagcetecag cagetgeagt caccetgeae etgggggete atggette 768

<210>	608	
<211>	698	
<212>	DNA	
<213>	Homo	sapien

<400> 608

cacagataaa gataagtttt actgtcatgc tgcttttaac ataacagagc aacatcacct 60 aggaaaaaaq tttgtaggag gatttttaat ccatatattt qtcttatqqc taqataaaqa 120 tttctctgaa aaaaagaagc atgtcaggaa tctctgggtg cccctttttc ctctgggac 180 ttctagcatt gttgggcttg gctttggtta tatcactgat cttcaatatt tcccactatg 240 tggaaaagca acgacaagat aaaatgtaca gctactccag tgaccacacc agggttgatg 300 agtattatat tgaagacaca ccaatttatg gtaacttaga tgatatgatt tcagaaccaa 360 tggatgaaaa ttgctatgaa caaatgaaag cccgaccaga gaaatctgta aataagatgc 420 aggaagccac cccatctgca caggcaacca atgaaacaca gatgtgctac qcctcacttg 480 atcacagogt taaggggaag ogtagaaagc ccaggaaaca gaatactcat ttotcagaca 540 aggatggaga tgagcaacta catgcaatag atqccagcgt ttctaaqacc acettagtaq 600 acagtttctc cccagaaagc caggcagtag aggaaaacat tcatgatgat cccatcagac 660 tgtttggatt gatecgtget aagagagaac ctataaac 698

<210> 609 <211> 1256 <212> DNA <213> Homo sapiens

<400> 609

ggtggaattc caccccagc gggcgcgggc cggagcacgg gcacccagca tgggggtact 60 geteacacag aggaegetge teagtetggt cettgeacte etgtttecaa geatggegag 120 catggcggct ataggcagct gctcgaaaga gtaccgcgtg ctccttggcc agctccagaa 180 geagacagat eteatgeagg acaccageag acteetggac ceetatatac gtatecaagg 240 cctggatgtt cctaaactga gagagcactg cagggagcgc cccggggcct tccccagtga 300 ggagaccetg agggggctgg gcaggcggtg cttcctgcag accetcaatg ccacactggg 360 ctgcgtcctg cacagactgg ccgacttaga gcagcgcctc cccaaggccc aggatttgga 420 gaggtetggg etgaacateg aggaettgga gaagetgeag atggegagge egaacateet 480 egggeteagg aacaacatet aetgeatgge ceagetgetg gacaacteag acaeggetga 540 geccaegaag getggeeggg gggeetetea geegeecaee eccaeecetg ceteggatge 600 ttttcagcgc aagctggagg gctgcaggtt cctgcatggc taccatcgct tcatgcactc 660 agtggggcgg gtcttcagca agtgggggga gagcccgaac cqqagccqqa qacacagccc 720 ccaccaggec ctgaggaagg gggtgcgcag gaccagaccc tccaggaaag gcaagagact 780 catgaccagg ggacagetge eceggtagee tegagageae ecettgeegg tgaaggatge 840 ggcaggtget ctgtggatga gaggaaccat cgcaggatga cagetecegg gtccccaaac 900 ctgttcccct ctgctactag ccactgagaa gtgcacttta agaggtggga gctgqqcaga 960 ecectetace tectecagge tgggagacag agteaggetg ttgegetece aceteagece 1020 caagtteece aggeecagtg gggtggeegg gegggeeacg egggaecgae tttecattga 1080 ttcaggggtc tgatgacaca ggctgactca tggccqqqct qactqccccc ctqccttqct 1140 eccegaggee tgeeggteet teceteteat gaettgeagg geegttgeee ceagaettee 1200 tecttteegt gtttetgaag gggaggteac ageetgaget ggeeteetat geetea

```
<210> 610
     c2115 417
     <212> DNA
     <213> Homo sapiens
     <400> 610
quaetteeeq qqteqacqat tteqteteqt etqqetqete qtqcteeqqe tqeeetqqeq
                                                                     60
ggtgccgggg cagctggace ccaccactgg ccggcggttc tcggaggaca aactetgge
                                                                    120
ggacgacgaa tgcagcatgt taatgtaccg cggggaggct cttgaagatt tcacaggccc
                                                                    180
qqattqtcqt tttgtqaatt ttaaaaaaqq qqatcctqta tatqtttact ataaactqqc
                                                                    240
acqaqqatqq cctqaaqttt qqqctqqaaq tqttqqacqc acttttqqat attttccaaa
                                                                    300
agatttaatc caggtagttc atgaatatac caaagaagag ctacaagttc caacaaatga
                                                                    360
gacggatttt gtttgttttg atggaggaag agatgatttt cataattata atgtaga
                                                                    417
     <210> 611
     <211> 886
     <212> DNA
     <213> Homo sapiens
     <220×
     <221> misc feature
     <222> (1) ... (886)
     <223> n = a.t.c or q
     <400> 611
tttttatttt tttgcttttt aaaagttttt atttcaaaaa ataaagctgc agttcatttc
                                                                    60
acataaatat ctggggaggg aaggggagtg ggatggggtg ggggettgge ecetaeetee
                                                                    120
tottotottt cacactgtat tgtaaaagca aaggggatgg cttgccgaac cagggggaga
                                                                    180
gocatatoto ottoattoto atotoatoao goagaactto attotoaaaa aggagotoca
                                                                    240
catoctoago otttaggate aagegotgae acaggaceet coggagatog cotaceteag
                                                                    300
ctctaacaga acatcggaca tacttgttct gcaggacgct tttattcttg tctttqccag
                                                                    360
aactcagccg ctccaggcac aggttcaact gctcatcata gcgatagtag tgggctttag
                                                                   420
agtggtcaaa gctgctgaag gggaggccga ggttgctcag tgctggctct tccccagtgg
                                                                    480
gctqqqtqac ccqqtccaaa cctcqqqact qqtaqaattc ccqaatccqt ttctcttcac
                                                                    540
totottocaa occaoocacc accttataca coatotocto catoacccoo tocaotttoa
                                                                   600
qqttqaqcaq tqqctqtqtc tcqtqqatct taatqttqca catqqqqcaq tacttqctaq
                                                                    660
tttggaggta cttcacaata caactcttgc agaaagtatg aagacactct gtgatggtgg
                                                                    720
tggcatccac gaagtagccg gcgcataggc agcaaacaat gtgttcattc aagtctttga
                                                                    780
tetteacteg aacetectee tgacceteet tteecagggg agactacaca acgteggega
                                                                    840
cacaacqcqc aqqcqqaatt ccaccqcntq qactaatqtc tacaat
                                                                    886
```

<210> 612 <211> 597 <212> DNA <213> Homo sapiens

<400 > 612 cgtagtaact gtggtggtat tccgcccatg cggctgtaga cgccatgatg gatgtttttg 60 gtgtgggttt cccaagcaag gttccttgga agaagatgtc tgcagaggag ctggagaatc 120 agtactgtcc cagccgatgg gttgtccgac tgggagcaga ggaagccttg aggacctact 180 cacagatagg aattgaagee accacaaggg ceegggeeae caggaagage etgetgeatg 240 teeectatgg agaeggegaa ggggagaaag tggacattta etteeecgae gagtegtetg 300 aaqccaccac aaqqqccqqq qccaccaqqa aqaqcctqct qcatqtcccc tatqqaqacq 360 gegaagggga gaaagtggae atttacttee eegacgagte gtetgaagee ttgeetttet 420 tectottett teaeggagga taetggeaga geggaaggea eeetggaeea catggtagae 480 canotracce graggettee ottteteeag aagegetate caageaacaa getttteet 540 ggtgagtggg gtetttgace tggagcccat cgtgtatact tcacagaacg ttgctcc 597

<210> 613 <211> 1163 <212> DNA <213> Homo sapiens

<400> 613 ccgagtcgac gatttcgtgg caggcgccag tcgcaggtgt gctgctgagg cgtgagaatg 60 gegtecegeg geeggegtee ggageatgge ggaeececag agetgtttta tgaegagaca 120 gaagecegga aatacetteg caacteacgg atgattgata tecagaceag gatggetggg 180 cqaqcattqq aqcttcttta tetgccagag aataagccct gttacctgct ggatattggc 240 totogcacto occtoagtog aagttateto teagatgaag ggeactatto gotoggeeto 300 gatatcagcc ctgccatgct ggatgaggct gtggaccgag agatagaggg agacctgctg 360 ctgggggata tgggccaggg catcccattc aagccaggca catttgatgg ttgcatcage 420 atttctgctg tgcagtggct ctgtaatgct aacaaqaagt ctgaaaaccc tgccaaqcqc 480 ctgtactgct titttgcttc tcttttttct gttctcgtcc ggggatcccg agctgtcctg 540 cagctqtacc ctgaqaactc aqaqcaqttq qaqctqatca caacccaqqc cacaaaqqca 600 qqcttctccq qtqqcatqqt qqtaqactac cctaacaqtq ccaaaqcaaa qaaattctac 660 ctotgcttgt tttctgggcc ttcgaccttt ataccagagg ggctgagtga aaatcaggat 720 gaagttgaac ccagggagtc tgtgttcacc aatgagaggt tcccattaag gatgtcgagg 780 cggggaatgg tgaggaagag tcgggcatgg gtgctggaga agaaggagcg gcacaggcgc 840 caqqqcaqqq aaqtcagacc tgacacccag tacaccggcc gcaagcgcaa gccccgcttc 900 taaqtcacca cqcqqttctg gaaaggcact tgcctctgca cttttctata ttqttcaqct 960 gacaaagtag tattttagaa aagttetaaa gttataaaaa tgttttetge agtaaaaaaa 1020 aagttototg ggooggggt ggtggotoac acctgtaatc coagcacott gggaggotga qqtqqqaqqa tcatttqaqq ccaqqaqttt qaqacctqcc tqqqcaacat aatqaaactt 1140 cctttccaqq qaqaaaaaaa aaa 1163

<210> 614 c211> 2428 <212> DNA <213> Homo sapiens

				gattctgttt		60
				gaaaacaacc		120
				tttccacacc		180
tcaaacaaga	gacaaactgt	ttttgataaa	ctctagtatt	tattaaatta	taaattttgt	240
				taagactaga		300
tatgggaaca	ccatgaagtg	tgttacaaac	attctgaaac	ataagttact	ggctgttttc	360
atttccattt	caataacttt	actataaaat	agttgttatt	catctatttt	gaaatcccaa	420
attcacatct	attcatacat	taaattatgt	ttcctgttca	taatatcaaa	catctcacag	480
				aaaaataaga		540
				cactggccaa		600
gaagttttta	aaaagtataa	agtaaacaga	cctcaagaaa	actgggttat	tactaaacag	660
ctctcaacta	ttaacaccca	agttccttac	attaaataaa	tttctcaaca	gagacatgtt	720
agacatttta	attatgagtc	tatcettece	ataccccttc	ccaccccaac	teceaaaatg	780
cactactagg	gatgagtata	atgttatgtg	ggcagaaatt	tacaggtaac	cctttcaacc	840
ttgagcatgg	agctgaagac	atttttattt	aaacttcagt	tactgtgcac	tgtccatcag	900
gccttctaga	tetgacactg	acactcactg	ttccacccc	tgctactgat	cgatcagttc	960
ccgatcgatc	tgatcgatcg	ggtactgtct	ggtttgcatt	agaaaccaaa	agtctctgtt	1020
gggtcaagga	gtgctgtgca	acaactgcag	atacatcctc	actatcacta	ctggcatctg	1080
attcagtttc	ttcaatggag	gtgtctggtg	ctggtaccct	gcctgaagat	ggtgattcat	1140
				gttgtctcca		1200
aatgagcaaa	agagtettee	agagaagtgc	ttgcatcagg	ggatggtgtt	gcagggcttg	1260
ttaactgacc	atctactgat	gttaggggcc	ttacagaaga	cactaggggc	tgaacagaag	1320
ctccactctg	tgctgataca	ctgtccgctc	cgtcagcaga	gctctctctt	gctaggttta	1380
cggtattagc	atcacagtct	agcctaagtc	cagctactcc	cttctttggt	atatctatta	1440
tatctcgctt	aatcttcctg	cgacgtccat	gttcatttct	cctatattga	accatgtttt	1500
caagatcagc	gacatacaga	aagccagcaa	ttaacatttc	agtgttcttt	ttacctttgg	1560
aaaaagcatc	ttccagctct	ctactagtgc	gctcatcgta	ctgccaccac	ccatttcttc	1620
cttcataata	ccatgcatat	tcaccatttc	ctctacttgc	tgccttgagt	tcttctggtg	1680
acaacaaggt	tggcttgtca	aggaaatcct	cgggaatttc	ttgtcgacaa	agagcacacc	1740
				gaaaacgtgc		1800
gactgactgg	atgaacacat	gtttgcagac	aaatggcaca	ttcagggacg	gttaaagaag	1860
				aggaagcatg		1920
				ttacaaagct		1980
				aggtaacaat		2040
				attacagatc		2100
				cagcttacag		2160
tccactgctg	gttcattctt	tgtgcggccc	ctgaccccgc	egeegeeest	ctcaggcccc	2220
				acaccgcgag		2280
				tgeteeceeg		2340
			gcggccacct	cgcagtcttt	tctctctggc	2400
ctcggagccc	gcagctgccg	ggaacgcg				2428

<210> 615 <211> 5653

<212> DNA

<213> Homo sapiens

<400> 615 ttttttttt ttgggtttct actgaaactt attatttgcc attaagaatt gcaaactata 60 ctactaagaa tgaacaacat totottoatt aagoottttt caaaacacac gagacaaago 120 teccetttgg teaaggtgte ceacacatte ceactgeage teccageaca geggegeace 180 atgaactcgg acgcggagcc caaggaatgg agatcgcacc agccttccct gcttccccac 240 cccaactaca cccaagggag aaaggatacg aggaaataca ctatgtcttc aatgcttggg 300 gggctggggg tgtcctctgc taccaggtgg gccggtcagt gccgactgtc cggcgcgcgt 360 ceteggggat eteeggetee eegaeetaea eaageageag eageageage agegagteet 420 gccaacgccg cagtagctgc tcatgagaaa agtgcccacg ctccccaagc cctcctgttt 480

	gtggggcaaa					540
tgcactctgg	gacccgggac	agcaggttac	acagggtcag	gcggtggtgg	gtgctggaat	600
	gttctggaaa					660
acaccacaag	actcaagtgg	ttttcccctt	ttggccctaa	accacctaac	acctcagcgg	720
catgggaggg	caattctcag	caaggcaagg	acatggggaa	aactcctaaa	agagggacgc	780
	caagcctgac					840
ctggggaagc	tgccacagaa	tgccacagca	ctggaaaggg	acactctgag	ggcaggetee	900
agcagcagct	ccaggacagc	cagecgeect.	tetacceaga	cccaccaccc	tatatectat	960
	ttcaggtttc					1020
ggaggaacct	cgccttcgtt	cctccaacct	catctcccac	tgaggtagcc	cttqqtaaqc	1080
	agagaggaca					1140
gggcgtgggg	ccgcagtgtg	getgeegete	ctctcacgcc	agcctgcaca	ggtcttctga	1200
gactgactca	gggagcgccc	cagaaattca	tatetatate	tgacaacttc	aaacaggact	1260
	accaaccaca					1320
ctaacacggg	gctggcagtg	tcgagagaac	gctctggaag	ctcctaacag	acggctccgc	1380
atacaaatac	acaggccctg	acgggcactc	taaactaaac	agtictgacac	caagcagtaa	1440
						1500
	gcagcgcagc					
cagcacgggg	cgcagccctc	ggcaggcgag	cgggcgggat	ggatgaaacg	cagcggcacc	1560
	ggctctcaca					1620
ttcaaagtct	tcatcttctg	agtogaagaa	tettteeagt	cgctctacat	cagaagaatc	1680
tagaaqqaac	aggacatagc	gcatcaggca	tettgggtgg	gccacctggg	tqtqaqtcaa	1740
	cgtggggcag					1800
ccatgcgggt	gtgaacaggt	ccgggggttg	tgcagacctg	cgaatatggg	gggagggagc	1860
agagaagagg	agcagggcag	aat.aaaaaaa	acaaaaaaaa	gccggcacaa	teteagget	1920
	tgtcccgcgt					1980
ccttgtttgt	agagtttccc	acagggagac	agagatgagg	aggacgcgct	cacggccact	2040
cacttcactc	cacgagecea	gaccaact.cc	tacaacacac	tagggatagt	ccgaggggtc	2100
						2160
	atggccagtg					
cacagagcct	gcatgttctg	tetgetecag	acccctgagg	actccatggt	agcacgccca	2220
get.ceacage	gccccggcag	acaacactaa	togggaagac	gaggtgggtc	ctagactact	2280
						2340
	ttggaggagg					
gccaagtgct	cacggctcag	gctcacacac	accttaatgg	tcaaaaccaa	gggggccagg	2400
actggggaag	caagggcaca	gategtacet	ccgagggacc	ccacctggac	ttagcagete	2460
						2520
	acaggttcag					
agctcaaaca	tgggcagggc	acctccaagc	agagacagct	ttttgacttg	ctggcaccaa	2580
	catcttcagt					2640
	cccatctgca					2700
gcgcagcaga	ggcccccagc	atgcaggtgc	tggacattcc	agcctgcctt	ggctcctgtg	2760
	gageteegag					2820
ceteaggete	cactgcgttg	ctgtgccttg	attegeceae	gagatgttac	gtggtgtgca	2880
tctctcaaac	ctcaccgagt	qttccqqqat	tqqqqcaqqt	tatgagttag	ggccaagtgg	2940
ggaggtgttc	tctctgtgac	tataaaacaa	aaccactaga	totcagoott	cacccaacaa	3000
ctccctggaa	gcttggcggc	aaaggccacc	gagaactgcc	caaggacacc	gtgacacagg	3060
gagceteetg	ctgaggagcc	aggagacagg	qqaccqqcca	agggtcaccg	qcaatcacat	3120
	gccgcctgta					3180
	caaaaagaaa					3240
ctgaagacac	cattctgccg	cctcggcgct	ggtgtaggag	cactctcccc	cqqqqacaqq	3300
	cctcctcacg					3360
	tcacgcgtcc					3420
actqttaqaq	tgccaatcac	totaagccac	caagetgegt	ttacaqtaac	aaacatacct	3480
	cgacgaggaa					3540
gcgcagtggc	tcacgcctgt	aatcccagca	ctttgggagg	ccgaggtggg	tggatcatga	3600
ggtcaggaga	tcaagaccat	cctqqctaac	acaqtqaaaa	cccatctcta	ttaaaaatac	3660
						3720
	ccaggcgtgg					
	gcgtgaacct					3780
actccagcct	gggcgacaga	gtgagactcc	gtctcaaaaa	caaacaaaca	aacaaaaaqt	3840
						3900
	gagctccagc					
ggagcgtggt	gtgcactctg	gggctgcgcc	acagctcaga	gaccgtccca	tttcaggccc	3960
agatetgeet.		333taaaaa	gaggatggag	aacagagccc	ccgattcggt	4020
	tetteeteet					
	tetteeteet					
	cctgagcatg	tcaccgtcat	tcatgatttc			4080
		tcaccgtcat	tcatgatttc			4080 4140
tttccccatc	cctgagcatg aaatatattt	tcaccgtcat gagggcaggc	tcatgatttc aggtctgcat	aaatcacaca	ccaaaaatca	4140
tttccccatc caactaggta	cctgagcatg aaatatattt atcaaaatgg	tcaccgtcat gagggcaggc aaaaacaggg	teatgattte aggtetgeat aageteette	aaatcacaca ttaggaaatc	ccaaaaatca ccccagagag	4140 4200
tttccccatc caactaggta gtcaagtcag	cctgagcatg aaatatattt atcaaaatgg agcctccgga	tcaccgtcat gagggcaggc aaaaacaggg aaacaaaagg	tcatgatttc aggtctgcat aagctccttc tggtgcagga	aaatcacaca ttaggaaatc gtgggtgggt	ccaaaaatca ccccagagag ggaggggccg	4140 4200 4260
tttccccatc caactaggta gtcaagtcag	cctgagcatg aaatatattt atcaaaatgg	tcaccgtcat gagggcaggc aaaaacaggg aaacaaaagg	tcatgatttc aggtctgcat aagctccttc tggtgcagga	aaatcacaca ttaggaaatc gtgggtgggt	ccaaaaatca ccccagagag ggaggggccg	4140 4200

gtgtttaaat	gtaggtgtga	gggggacaca	ctcaccatgg	ctcacactca	tccatgcaca	4380
ctcagcacgc	gcccacacac	gctcacatcc	agacacacgc	tetetgggce	actcgaaggc	4440
catgaaggct	gcacaggagg	tggtgcctgg	gggagggacg	tgagggtgca	aggacacagt:	4500
teeggetett	atacccttca	gattcccaac	cacgtgaaca	cagtacttat	cccaacatgc	4560
tgaaaaaaaa	acgcaaaaat	ccgaaagttt	tcctcgtcat	tcccaaacag	cattcagcac	4620
caaatgcctg	tgtgctcagg	tggccgccac	gtaccacagc	gatggacggg	tcaagctccg	4680
cgatgctcat	geggeaegge	gggtgctggc	agtggaaget	ctcgtccggg	atgaagcagc	4740
catcagtggg	ctccacggct	ggctgcgtgg	tgtgggggtc	caggtagatg	agetecteae	4800
caacgtagcc	gatgaagtag	tgggcgctgt	tgggcttccc	tccgatgacg	cccagggact	4860
ggggcatcat	gaagcagtgc	ttcagcgtct	ccacgtaggc	ctcgttgatg	teegtgagee	4920
ccaggcgcag	gggaatgaga	agtaccaggg	gtctccatgg	cgacggcctg	ttggtgacct	4980
cageteegge	agggaatccg	ttgcagtgcc	ggtcggaatc	tgcaggaaac	gcagtggcgc	5040
ctgcacaggg	aacgctggtc	ctgcacaacc	ttctgatttc	ctccatcaca	acagtgttgt	5100
ccattgcaat	gtggaccgcc	aaggagctcc	acgtatcgaa	gacagcaagc	ttcttcagga	5160
cctgggcgac	agtgttgggc	ccgtaccact	ggcctatgga	cttgccttcg	ccaactccca	5220
tttgcgctat	ctggtgaatg	gagtagtaac	tgtccttcct	gtcgatgaat	gcgttgagga	5280
cgctgaagta	getgtetgge	tgcctcttcc	tttgtgtcca	cctccaatct	cggcctaggt	5340
gccggcacac	cagggcttgg	gcaaagatca	tctgtccaca	ccgcagcatg	cagccccagc	5400
ctgtgtccga	ggtggggcct	gtccccccaa	tggctggaaa	gtttttcctg	tatgtaaacc	5460
aaagtctaga	tgccacatca	gacaagatct	cgtccttttc	tgtgaaaatg	ctgtattttc	5520
tacccagtat	ccaaacgggc	tctgaggtct	caggaaaatc	ttcaaactca	gcaaaccgga	5580
gagtgtcgta	ggtcagagta	gctgcgtcca	tcttcccagt	ccggccgccg	actgaccega	5640
geggegtege	tcc					5653

<210> 616 <211> 658

<212> DNA

<213> Homo sapiens

<400>	616					
ccttttttt	tttttataaa	tatatgtata	tattttattt	acattatata	catggcatat	60
ctatacagtt	acatttacac	ttgacttaga	gtcaaagtca	tatacacaca	cacaggactt	120
ggactcaaag	cttttaatga	caagcatgca	aaatttctta	gtatagaccc	taagagtacc	180
cttaatataa	gtatgtttat	ttaaaaattc	tatgtatcta	ctactgttac	cagggggtcc	240
ttgctcccag	agctcccaag	atggtggtgg	gccacttcca	agatggtggc	aggccacttc	300
caaaatggtg	gcaagcctca	tgttctctga	cctggggttc	ttggcctcac	agattccaag	360
gaatggaatc	ttgggccatg	cggtgagtgt	tatageteta	ttagaagtcg	tgggtcacgg	420
aagagaaccg	tggaacccag	tgactagtgt	tcagctcgat	taggacaaac	ccaggcactt	480
agccgtaccg	gaacaatggc	aagcetttag	cccgatcggg	agtggcaatg	ggcgcatggc	540
tgcatcagga	gcacagcgga	caccctgcca	gatctggagg	gatggaagtc	agtggtaggt	600
ctgcaatggt	ggcaaacagc	agtggtggat	ggcgagcgaa	agctcagctc	gagetgta	658

<210> 617

<211> 381

<212> DNA

<213> Homo sapiens

<400> 617

cccacgcgtc	cgctttcggc	ttctgcatgt	caccagcatc	aggagtgcct	ggatcctctg	60
tgggatcata	tggatcctta	tcatggcttc	ctcaataatg	ctcctggaca	gtggctctga	1,20
gcagaacggc	agtgtcacat	catgcttaga	gctgaatctc	tataaaattg	ctaagctgca	1.80
gaccgtgaac	tatattgcct	tggtggtggg	ctgcctgctg	ccatttttca	cactcagcat	240
ctgttatctg	ctgatcattc	gggttctgtt	aaaagtggag	gtcccagaat	cggggctgcg	300
ggtttctcac	aggaaggcac	tgaccaccat	catcatcacc	ttgatcatct	tcttcttgtg	360
tttcctgccc	tatcacacac	t				381

<210> 618 <211> 1477 <212> DNA

<213> Homo sapiens

<400> 618

```
geggeegeea ttggetgggt teggegeage taacagaegg eggeagtgeg agaaageega
agatggeggt cecegeggeg etgatectae gggagagece cageatgaag aaageagtgt
                                                                     120
cactgataaa tgcaatagat acaggaagat ttccacggtt gctcactcgg attcttcaaa
                                                                     180
aacttcacct gaaggctgag agcagtttca gtgaagaaga ggaagaaaaa cttcaagcgg
                                                                     240
cattttctct agagaaacaa gatcttcacc tagttcttga aacaatatca tttattttag
                                                                     300
aacaggcagt gtatcacaat gtgaagccag cagctttgca gcagcaatta gagaacattc
                                                                     360
atcttagaca agacaaagct gaagcatttg tcaatacttg qtcttctatq qqtcaaqaaa
                                                                    420
cagttgaaaa gttccggcag agaattctgg ctccctqtaa qctaqaqact qttqqatqqc
agettaacet teagatgget caetetgete aageaaaact aaaateteet caagetgtet
tacaactcgg agtgaacaat gaagattcaa agagcctgga gaaagttctt gtggaattca
gtcacaagga gttgtttgat ttctataaca agctagagac tatacaagca cagctggatt
                                                                     660
cochtacate atettttega agactettt tttcatcace ctcctgccac ctcattattt
                                                                     720
tocattogag atacattocc agottotott ttctgaagga ttcagtgact toctttctgt
aaattatatg gottatoact tottagacaa ataacaacca atagagatca ttgttaagaa
                                                                     840
tactgaggtt ctaatatact ttctttagtt ctgtgageca acagtaatta ttaagaacac
                                                                     900
tttcccttta aaggaaacaa aagtgaatac catattgtt ttactgtcat agtgttgctt
                                                                    960
tottqcctqt cctqcttagt ttttacttgc tggatgatac cataatgtat caaggaqcgt
                                                                    1020
ccatqqatac aagataagat gtgtacctta gtagaataca gagctttggt aattacatga
                                                                    1080
ataaaattaa gaaaatagcc atatacaatc aaatacacta tggcattttt atttgaatat
                                                                    1140
gatgagtata ttttgcttcg gaaataatat aggaaggaaa tgtaaaatag tgagtagtat
                                                                    1200
ggtatcagtt aattccagtc tgagcttctc tgtcaacttc agtttctctc tcagtttaat
                                                                    1260
gatttaataa tagtccaggt ttttgtgtgt ttttctttat actgcaagtt aataatgatt
                                                                    1320
cactttatag tttgggagac agaatcaggt cttgaataaa ataattgtaa tgagtgctaa
                                                                    1380
atgggcacca ttattcgaat caaatacctt ttatattctc tttccataaa tacgttgatt
                                                                    1440
tctqtcaata aaatttttqt qtcttaqaaa aaaaaaa
                                                                    1477
```

<210> 619

<211> 917 <212> DNA

<213> Homo sapiens

<400> 619
ttttttttcc acagagcaaa aattagattg aattagettt gatgtagtae ttgtttaage acagatttae gttgtcttag agagtaqqaq attqtataqa atctatgete qtaqtaqaet

60

acaga acceatgete gragiggaer

atatagaaac	tagaaatgca	gttatactga	tgtagtgcag	tttgtgggaa	atcaggaatg	180
gtgttctcca	gaatacatga	agattctcat	tgattgttgc	aaggaatcac	gaaagagatc	240
tttggtccaa	agaaaacgtc	ttttgggcag	cagagcaatt	cgctgaagtt	gcagtaacag	300
atcatctcac	atcccttccc	atcccagaaa	tgatcctgga	cattgacatc	aatctgtgtc	360
aggtcagcta	ctccttccgg	aaggttgtga	cagttgtgat	cttttagtat	ctttctgtag	420
caagagaggc	gatttgcagg	catggcttga	actcctagca	gcaaagttag	cccaatggtg	480
aaaacaagta	ccatcagttt	cattttggct	tttggccctt	tttcttcttt	ccttttggtc	540
ttggcagagg	atgcttctta	aatgctcaca	ctcactgggt	gagtttgggc	aaaaggagaa	600
gagaggaggt	gctggaagga	gettetttae	aaatgaacct	ttgtctgcct	tgtctctggc	660
ctgggatcga	cagactcgct	gctccagccc	aggactgtgg	ggaggagggg	agtggaagga	720
gacaaggctg	caaggactgc	ctcctttgga	agtgttcagt	ttgttccaaa	ccaggcgaga	780
acgaatagaa	cagcttcttt	acagagggaa	ataactagcc	tatacaagaa	cctcagggag	840
gcagactctg	gtagcaataa	aacataaaac	ctgagggatt	ttaaaagaac	acagcgtgat	900
ttttccctta	agaaaag					917

<210> 620

<211> 2676

<212> DNA

<213> Homo sapiens

<400> 620

tttcgttgca	gcgaaaggaa	atctcgctct	tccgaaagtc	ctccagggcg	agagaggaaa	60
gggcctaggt	actgtgctgg	ggtcgcacag	ccggccgaga	cagtgccggg	acggggagcc	120
aggetteega	gtgcgcccgg	tcactgactc	ctccgcgctt	tcctcgtgcg	cctgcagccc	180
ttggttcttg	gaaacgccgg	cgccttgttc	agggctggtg	gggctggggc	gcaaggtgca	240
gctgacaatg	cccgagagga	gccgcagcct	ctggtggagt	teggtegggt	gtgggggtag	300
tcaaggaaag	aagcaaaggg	aatacctcct	ctgaaaaatg	gcagaagcag	ttttccatgc	360
cccaaagagg	aaaagaagag	tgtatgagac	ttacgagtct	ccattgccaa	tcccttttgg	420
tcaggaccat	ggtcctctga	aagaattcaa	gatattccgt	gctgaaatga	ttaacaacaa	480
tgtgattgtg	aggaatgcgg	aggacattga	gcagctctat	gggaaaggtt	attttggaaa	540
aggtattctt	tcaagaagcc	gtccaagctt	cacaatttca	gatcctaaac	tggttgctaa	600
			catcacatca			660
			ggggcaggat			720
			tcctcctgtg			780
			ttccaacatg			840
gagacettet	gtggtaaacg	gggactctgg	aaagtcaggt	ggtgtgggtg	atccccgtga	900
gccattaggc	tgcctgcagg	agggctctgg	ctgccaccca	acaacagaga	gctttgagaa	960
aagcgtgcga	gaggatgcct	cacctctgcc	ccatgtctgt	tgctgcaaac	aagatgetet	1020
catcctccag	cgtggccttc	atcatgaaga	cggcagccag	cacateggee	tcctgcatcc	1080
tggggacaga	gggcctgacc	atgagtacgt	gctggtcgag	gaagcggagt	gtgccatgag	1140
cgagagggag	gctgccccaa	atgaggaatt	ggtgcaaaga	aacaggttaa	tatgcagaag	1200
aaatccatat	aggatctttg	agtatttgca	actcagccta	gaagaggcct	ttttcttggt	1260
ctatgctctg	ggatgtttaa	gtatttacta	tgagaaggag	cctttaacga	tagtgaagct	1320
ctggaaagct	ttcactgtag	ttcagcccac	gttcagaacc	acctacatgg	cctaccatta	1380
			gggactcaag			1440
atatcggaaa	ggccctccat	tttaccatgc	aagttattct	gtcattatcg	agctagttga	1500
tgaccatttt	gaaggetetc	teegeaggee	tctcagttgg	aagtccctgg	ctgccttgag	1560
			tatgetgtge			1620
tatgactgac	aaggaaatgg	agtcgccaga	atgtatgaaa	aggattaaag	ttcaggaggt	1680
gattctgagt	cgatgggttt	cttcacgaga	gaggagtgac	caagacgatc	tttaacaatt	1740
caacetcaaa	tttctaattt	caccaacaac	tatttattga	gggctaggta	aaaagttett	1800
tttgttgtaa	tcgtccatta	attcataagt	tttaaagggc	atggtgctcc	cagcaccaga	1860
			acaagggagg			1920
			aactctccaa			1980
			gggagattgg			2040
acacttccaa	caagagacat	ttattctctg	attttacctg	aaaatggtag	tagtttacat	2100

ttatacagta cagtttatga agcactttca tacgcaggca tctcttgtta cctacatcta 2160 agetgtteec gaaagagtgt tacagaacac aacagtattg tacaatatte gataagcata 2220 tetteactgc acttottata aaaatqaqtq qtqaaataat qtttqqaqac ataatqaaaq 2280 cgattaacat ttggcaaaat ataataaagc ctttttgtaa ttggtgagaa agtcatgaag 2340 acttaagttg cctcagggca tctggtggca agaggaggga gatgggtggc tgggcatggt 2400 ggcccatgcc tgtaatccca gcacttggga ggccttggga ggccaaggcg catggatcgc 2460 ttgagcccag gagttggaga ccagcttggg caacatggtg aaacctcctc tctactaaca 2520 aaaattatcc aagcattgtg gcacatgcct gtaattccag ctgctcagga gactgaggta 2640 qqaqqatcqc ttqaqcccaq qaqgaaqaqg ttgcaqtgag cggaqattgt qccactgcaa tecageetga geaatagage aaggteetgt etcaaa 2676

<210> 621 <211> 6026 <212> DNA <213> Homo sapiens

<400> 621 tggggccaat aggaagatgg cggagtccgt agctgccgct gagctccagg cttctggggg 60 teegeggcae ecagtgtgte tgttggtgtt gggaatggeg ggatceggga aaaccaettt 120 tgtacagagg ctcacaggac acctgcatgc ccaaggcact ccaccgtatg tgatcaacct 180 ggatccagca gtacatgaag ttccctttcc tgccaatatt gatattcgtg atactgtaaa 240 gtataaagaa gtaatgaaac aatatggact tggacccaat ggcggcatag tgacctcact 300 caatctcttt gctaccagat ttgatcaggt gatgaaattt attgagaagg cccagaacat 360 gtccaaatat gtgttgattg acacacctgg acagattgag gtattcacct ggtcagcttc 420 tgggacaatt atcactgaag cccttgcatc ctcatttcca acagttgtca tctatgtaat 480 ggacacateg agaagtacea acceagtgac etteatgtee aacatgetet atgeetgeag 540 catcttatac aaaaccaagc tgcctttcat tgtggtcatg aataaaactg acatcattga 600 ccacagettt gcagtggaat ggatgcagga ttttgagget ttccaagatg cettgaatca 660 720 agagactaca tacgtcagta acctgactcg ttcaatgagc ctggtgttag atgagtttta cageteacte agggggggg gtgtetetge tgttetgggt actggattag atgaactett 780 tgtgcaagtt accagtgctg ccgaagaata tgaaagggag tatcgtcctg aatatgaacg 840 tetgaaaaaa teaetggeea acgeagagag eeaacageag agagaacaac tggaacgeet 900 tegaaaagat atgggttetg tageettgga tgeagggaet gecaaagaea gettatetee 960 tgtgctgcac ccttctgatt tgatcctgac tcgaggaacc ttggatgaag aggatgagga 1020 1080 agcaqacagc qatactgatg acattgacca cagagttaca gaggaaagcc atgaagagcc agcattccag aattttatgc aagaatcgat ggcacaatac tggaagagaa acaataaata 1140 qqaqacttta qcacacttca cttgtttcta qaaqtccaga attttggacc tccacgtgaa 1200 1260 agaactgttc ttacctctga actgggggct cccataaggg ataattttcc tcagagtagc 1320 aaagtttctc ttattagaga aatcttgtga ctcagatgaa gtcagggata gaagaccctt 1380 ggacctggca ggttaatgct gattattcct tggcctttcc cttgtattta tgcaaggaag gatatactga gctgatactg ttccaagcct acaacttcaa gttttatcat ttgaactcaa 1440 gtacttttgc tgctgaggaa tggaatcaaa agaacgtagt ctcctggtga ccacctcaga 1500 tototattat taggotagat gtatagooto tactocccca gottottgot ottgaccotg 1560 cactgtaagt tgcccttcta ttagcagcca aggaaaaggg aaacatgagc ttatccagaa 1620 eggtggcaga gteteettgg caateaacca aegttgetat gaaatatgee teacactgta 1680 tageteatta taggaegtea ggtttgttga aaaaagtggg caagacatga ttaatgaate 1740 agaatcctgt ttcattggtg acttggataa agacttttta attttaactt tgctctaaga 1800 ctgcttgtca tgatttcaaa ttagaaaatt atataattgc aaacagcttc acttctcctg 1860 ttcaacagag gcttaaggcc agatgtccaa acttgtctca ataaggaggt gatattttac taaagtttcc cacgtgcaca tactgactaa atacagagct aggcccagtt tgtattgtac 1980 tetgaaetta atgeaaagte teettqqtqa ttttteqeaaa gteegtggat ttgggteaga 2040 ggcacatttc atacataaca gcccttataa acgtttgccc tgcctccaca ttttacagta 2100 tottaaaaca gtacatttot ttoaaagaat tttatotota tgagtcagta otocaactta 2160 ggggggtccc acattggtgg gaccaggagg catcagcatc aaccggggga attggttcaa 2220 cttacctctt ataacctatg aactcagaaa ccctgggggt gggctgagca gtctgtttta 2280 gaaagccctc catgtgattc tgatgcatag tagcctatga cataattcca gaccaggtga 2340

WO 01/53455	,				PC 1/US00	/3501/
atotoaaoat	actaatcctc	agatgatttg	aattatasts	tttaaataat	attanaanta	2400
	tatgcagttt					2460
	ttctatactt					2520
	attcgcaaaa					2580
	cttacagaat					2640
	aatcatttt					2700
	atgaatgaac					2760
	tcattataaa					2820
	cgcctgtaat					2880
	tttgagacca					2940
	gctgggtgtg					3000
	cgcccgaacc					3060
	tgggtgacag					3120
	agactgtgac					3180
	attatatgtt					3240
	atttaaggca					3300
	ggtctaaatt					3360
	ctggcatcca					3420
atcactacag	tgctacatca	tttacttaat	aaatactgat	tcagtactta	tatatacaga	3480
	gatgagtaac					3540
	tatgttttaa					3600
gactgctgtc	ctctgatgac	caagcaaatg	caacaaatga	aatatgcaca	aggetgteet	3660
tggacagtac	ttgtttgctt	tgctcacaaa	ggagaaaagg	aaagaaacaa	ttgaaaatat	3720
gtatatggtg	aaagtatgtg	agtccgagca	gaaataacaa	aggcaaaagg	atgaggagag	3780
atggagtaag	tctagagaag	aaaataaatg	gatgagatag	agagctgtct	aagcaaaaaa	3840
ggtgtcagac	ctctgatctt	ataaataaga	cacttcaaaa	gtagcaaaaa	cagttttaag	3900
	atagataagg					3960
ggttcccaat	gacctgagcc	aaaaatgaat	caagttaaat	gaaaactgac	atctgatatg	4020
agcatatatt	attagtctat	tcaagcacag	ttttgaagtt	agcaaacatc	taaatcctca	4080
	aggtaggtca					4140
	agtcatagtt					4200
	tattttatct					4260
	aaatgcaacc					4320
cacttgtgtt	taagaacagg	agtcaaatca	atttttaagg	aaacagattc	taatacaaaa	4380
	ttgggtctag					4440
ttcctcatcc	tcttcttgca	gcgctggttg	aaaacagggg	aggaccccat	gaggetgtea	4500
gtggagtggg	aaccatagct	gctatctgag	tcatcagggc	tctgaggaat	cccagcttca	4560
ctcatgcctg	acataggete	ctcgaagaca	tcactgccca	gcacaccatg	cccagagaca	4620
	cactttcttg					4680
	ctgcacttga					4740
	gagccccaag					4800
	cctcactgac					4860
	cgtcctctgt					4920
	taatctgtag					4980
	agagcacact					5040
	tctgtcccag					5100
	aatactcatg					5160
	ccgcgtgggc					5220
	tgagttcagt					5280
	ggatctggaa					5340
	gaggtgaccc					5400
	gctgctgatt					5460
	tcaactgaat					5520
	ggggettegg					5580
	ggaactcccg					5640
	tctctcccca					5700
caacaaacat	ttatcaaatg	ccaggcattc	tatatcaatc	aaagactgat	aatataagat	5760
	accgaaagga					5820
	tttcctcggt					5880
gtcgcctgac	gttcagggca	accadasas	agagagagge	gaacctgaac	casascessas	5940
	ctattcactg					6000
	gcaaggatcg		3-30999009	33,232,0300	aucocoga	6026
2 22249		2				3023

<210> 622 <211> 676 <212> DNA <213> Homo sapiens

<400> 622

ttttttttt ttgaagagag cagattetet ttattgagat acgggacaca gcgaagggtg 60 gagagaegga acageceece ageeteagee etetecaegg gggeeggatg ceagagatgg 120 gagaagggat toagtototo gooogggaaa cocagtocca caqaqqqqq cqq cqqcaaqqqt 180 gggacgcgac ctgggtgaca cggtgcaggg agtctttaaa tagaggaggg gctggagcgg 240 ggaaacgcgc cggggcccta gcgcaccatg tattccttgc gcttattgag ccgaacttgg 300 cagaaagaga agcctccgag gaggaggtaa aggcctgcag cgatgaaaca gttgtagctg 360 acttgctcgt aaaggttgta tatgttctgg gggccattct caaaatcttt ctccgtgaag 420 ggaacgtcct caatcaacac agcggaatgg acattgaaaa atattccgag cattatcaac 480 atgatcactc cccaggoget gaggacgatg ccgcaggogg ccagettegg cccacagcac 540 aggagegacg ccataaagaa gggagteggg gategeegag qtgcaagegg geteggaaag 600 cggtgggaga aagcccagga tgccctcgcc cacgcgtccg cccacgcgtc cgcccacgcg 660 tecqcccacg cgtccg 676

<210> 623 <211> 1080 <212> DNA <213> Homo sapiens

<400> 623

ttttttttt ttcaattata aattttattt aagaatactg acttaacaca ggaaacagat 60 ttaattcatg gaattgtgca tatggtcatc cgttacattg tgacatgtta atttttttt 120 atcatttatt ggcactgtca acagattact tgtgaacaag atcactttgt acgcttaagt 180 ctgcgatgct acttagctat ggttttctac catgagctta tatatagata ggtgtaggta 240 tgtagataca ttaatgctat acacaatttt gcatggttac tgagcgtcag taaaaattat 300 gaaaaaacac ccatttataa taaaagtgag gatgtactaa gacttgctat tactggacct 360 tgttttctgt aaaagtgatg acacttgctg gacggttact aaactctatg gcactaatgt 420 atgatggatt catttccaga ctgtcggcca cggaagcact tcttcatggc ctctgccctg 480 gacageagee tgteeteegg geteeceatg tttttaceag ettetgetga gtttetacaa 540 tettgagete tgetgagaat tetttteett gaaattette tacetaaage eccageecee 600 aaaagagcat gtctcaggaa ctcattatgc cctgagtcaa caagaacttg ttgataaatg 660 gettaaaagt ttttacaaga agtaacttee ettggtaagg agtaaataat agetetggaa 720 ttttccagat aaaactattt catttctctg tcagtqcccc atggggagag aacgaaatat tggagcccct ctccctacca aaqaqaqcca cttttctqqt tqtqccctqq cttaaaaccc tttggtctcc qagaaccata ctgaatattt qcacccaatg ctaaagtttt caggagaaag 900 catacttaag ccaataaatg aataatggtt tggtttgcat tttgcttgct tgttaaataa 960 ggccttattg aaccttggga tgctgcctgt ggaaactggc ttccccagtg aaagatgtga 1020 tgccatgaac tgatatgcct ttgcatatgc tgttccctct ctgcaacacc ctctcgtgcc 1080

<211> 1056 <212> DNA

<213> Homo sapiens

<400> 624

ttttttttt ttggagagaa ggataagcca tttattaacc ccacgccct agcaccagct gtcaccttgg acttgttgga gatgcagggg ctagaaagga aatgacagag tgtacaggcc 120 cottogacco ogtgtoccat aggtggtggc occoaqacac accetototg ctggcagtgc 180 agaacatgca tcccaatacc ctagaggaga aacaccaccc cagggagagc cctttctgct 240 ccaacctcct gggcaggtcc caggttgggg cagcagccat ctgcaggtgt ttgtcaggcc 300 tggccacaca tgcggacaga ggatacgact ggggtaccct agggtgtggg gagggtcggc 360 ctggggtcag ggggcatgaa ggctgtgttc cagactectc ctgcccccaa tectetgtgc 420 ccctqctqga gctctcctag cttctctgat ctgtgctcct gtctttgggg agetgcccgg 480 totocaggaa gagocagagg ttgttgcatt totocqacto cactotogto accocqtago 540 tgaccacaga gcctgcaacc acggccacta ggaggctcca ctgcaaaggg tatggaaact 600 tcctctgaat gaacatctgc aagccaaagg ccatgccggt gcctgtgacg aaggtgaaaa 660 egecetteat gaaggegtgt gaetggeatg eggeataete eeegagteee tgqqqtqgea 720 gaggogggtg aaggotogat cocctgooot ottootteac egectoteet gtooctecte 780 tgggcacacc ctggctgtgg aggagtgaga ccctggqcqc ttqqacacqt cccacctccc 840 ctatgcccac coggacgccc tgagcccctt agcaagagag tgcccccagc ctccgccact 900 cttccctgac gagggcaccc ccacgccccg gcccccqcc tcqctcaqqt caqcttctqq 960 ggtttgaggc ccgcgtccca gaccggcctt ctcaccgggt gcttggcagc cacggcgtcc 1020 tccacceggg acagacceaa gttcaccatg gttggc 1056

<210> 625

<211> 583

<212> DNA

<213> Homo sapiens

<400> 625

ggcacgagcg agetgttgtg catccagagg tggaattggg gcccgqcatt ccctcctcqt cccgggctgg cccttgcccc caccctgcaa ctcctggttg agatgggctc agccaagagc 120 gtcccagtca caccagegeg gcctccgccg cacaacaagc atctggctcg agtggcggac 180 coccepticac ctagtgctgg catcctgcgc actcccatcc aggtggagag ctctccacag 240 ccaggectac cagcagggga gcaactggag ggtettaaac atgeecagga etcagatecc 300 egetetecat tggggaagaa etgagggcae gggtggcaag tgggteaggg ateagacetg 360 ggcageccac agectetece gecetetgee teccacetga cagetecagg gcaagecget 420 geteteagee tecetgeetg tecetteett ggtttggggt gagaageage cetgeeaaca 480 cataccacqt qccaqtqact tccctatgcc cctcqcccqc tctgcactat acaqcqctqc 540 aggcaggcat catttccacg tcgcaggcaa gagcaccaag gct 583

<210> 626

<212> DNA

<213> Homo sapiens

4400> 626 acatcagactag getgecocca oggatgaagg octgaccact getgetocca oggettateg accatcagactag getgecocca oggatgaagg octgaccact getgetocca oggettateg cettetegat caagcecaac acggecatca ocgggatga caggagaaag octcoagget gatgagacaa cagattecc acaccettag aactgatcaa acteatgagat tattacetgg aaaggacgag occaacacteg tgaaatcgaa tgetocaaa ogggatgat tattacetgg ogtgagtgag gaaaaccaca tactttetga accgtagaaa aacctgtat ocggatgata accgctagag toctatcoct 380

<210> 627 <211> 1906 <212> DNA <213> Homo sapiens

<400> 627 ccacqctqtt acaaaqqqqa catcatqqqc tqtqqaatca tqttcccccq qqactacatt 60 ttggacagtg agggggacag tgatgacagt tgtgacacag tgatcctgtc tccgactgcc 120 egggeegtee ggaaegtgeg gaatgteatg tacetgeace aggaagggga agaggaagag 180 gaggaagagg aagaggaaga ggatggggaa gagatagagc cggagcatqa qqqcaggaag 240 gtgqtggttt tetteaeteg gaatgqeaag ateattggga agaaggatge tgttgtteet 300 totggagget tettecccac cattggaatg etgagetgeg gggagaaagt caaagtagat 360 otgeacccct tgagtggcta gggcctcccc tccagacctg ctccttctcc ctgctcaccc 420 tetgetggge caggeaccca gttcetgact tcccagaggc ttcgtttacc cagcaggccc 480 ctggaggtgt gtagtcactc tgcccccact ggctcaggcc cctgtcacgc ttctctgtgc 540 ccacgtttct gacctggtgc tgccactgtt gtcagtccct gggcctgagt ccctggttgg 600 acaggaatgg acccaaagaa tggtgttggt atgtgggtgg tcccactcgc tttggtcagt 660 720 gggettetgg gtececettt ceetcacegg ceetgtgtgg gtggagagge gtgagcacec tateteaget getatteggg catgatgett tgtagagggt agagtagaca geceettee 780 ctactcacca tggtatttct ccttgaattc ctctttcttg ttttctttcc tggttgtgtg 840 aaccaqttgc tqctqtcata cccctggcag ggccagggga cctctctttg gtcatctctg 900 teettteact ggetgetgee eeaggaagae teetetagge tetecatett teeettgaga 960 getggetece caccecaace tgeteaggea ccacagagga tetaggtete tggetececa 1020 tacctggacc cacatgggtg ggtgcctgtt gcatgtttaa gagagagggg ctgtgaggtg 1080 acagggeact agggeettea etectttete ecettecate etttettac cagtgecace 1140 catqtcccta qctcccqqqt attqqqqctq aqqctctqqq qcctqtctcc ctqccaqcqt 1200 1260 gagggcaaga ccccagagcc ttagctgagc aagcccagag gggcagcgtg gcccctccct 1320 cccettttee tgcccegtcc catgcctcag ettgctgctt gtgccagttg cctgtttegc 1380 tteagtgttt gattetagea ettacatgtg teeteceeae caageeetet ateteettet 1440 aateetteaa eeeetggeee eeteeeegta acagtgaett tteeagggag gaagaggeag caggagetgt tggcettggt ttgcacagag cgggtagggc tgtagggaaa gcgggtgage 1500 tqttqtgctq ctqqqcctcc ctttqqccct cgcttcccac cctacgatqt atgaaatgta 1560 tgtacagacc agagatgttt atacagccga taaagatgga gtttccgtat ttatcagtat 1620 ggeggaace aggageettt etagteeact gggetaggaa caggactget ggatgggge 1680 1740 agcequagge agettgetea tggggagatg tggaccaatg ttgggccagg gatgggaate atatgttcca tgggcctggc tacaggcctg agcacagata cgtcccctgg gagatgaggc 1800 tttgaccttc ctgtgaataa gtgttgactc caatttcggc taaagtttat agaaattctt 1860 tattattaga caaaaataga ctctctttt tcccctaaaa aaaaaa 1906

<210> 628 <211> 1775

<212> DNA <213> Homo sapiens

<400> 628 ggtggttcag ggggcgtgta acctgggccg attctgcccc agcacactgg ttgtcgggag 60 coccepette getegeggtt gacageteag etggtgeega geaactegtg ceagecagte 120 gtgtctcagc ctggagagtg cgcgcaccgc cgcccgggca gccgctggct ccagctcacg 180 aaacagcccc gggcgccgcg ccgctctgag tccagcctcc tactgagaac agtccctccc 240 ttgtgegggt egeaeggeta geegeaggtt eggeeaegte aaateeattt tetaaaaaag 300 cagggagcag agctetetet tegeegeega egcagaaagg agetggggag gaaaaagetg 360 ctgccttttg cgctggagat tcgtgggcaa ggcttctcat tttcccaggc tgcttcccct 420 cccgggtgag gagcgtcctg agactaagga aagagcctgg aaaatggagc agacctggac 480 gagagattat tttgcagagg atgatgggga gatggtaccc agaacgagtc acacagcagt 540 tetgttteat tgacagettt tettagtgac actaaagate gaggeeetee agtgeagtea 600 cagatotgga gaagtggtga aaaggtoocg tttgtgcaga catattoott gagagcattt 660 gagaaacccc ctcaggtaca gacccaggct cttcgagact ttgagaagca cctcaatgac 720 ctgaagaagg agaacttcag cctcaagctq ctcatctact tcctqgagga qcqcatgcaa 780 cagaagtatg aggccagccg ggaggacatc tacaagcgga acactgagct gaaggttgaa 840 qtqqaqaqct tqaaacqaqa actccaqqac aaqaaacaqc atctqqataa aacatqqqct 900 gatgtggaga atctcaacag tcagaatgaa gctgagctcc gacgccagtt tgaggagcga 960 cagcaggaga tggagcatgt ttatgagctc ttggagaata agatgcagct tctgcaggag 1020 gaatccaggc tagcaaagaa tgaagetgcg cggatggcag ctctggtgga agcagagaag 1080 gagtgtaacc tggagctctc agagaaactg aagggagtca ccaaaaactg ggaagatgta 1140 ccaggagacc aggtcaagcc cgaccaatac actgaggccc tggcccagag ggacaagtag 1200 gtgccttcgg tgctcttttt gtcgcttgtc ttttgcccat tctcaaggca tacagcagct 1260 gtectgttee ettteaagga etgacagtag gagetteact atttetaaga etttatggge 1320 ccacaaccga agacattott ttcagggttg aattttcagt ggtatccatt atgaaaactc 1380 acttcatgga ttcagtqqqc aaataqcqqc aaqcaaqaqa catqqattca cttattcqqc 1440 aaacatttac toggcatocc acatoccaga taccogocta agtatctogc atotottaca 1500 gaaacaaaag acctaaatct tgtcaccaag aaacatgtta catgatttta ataagttccc 1560 tgatagaaga gcatggggtg ctctggggaa atattggagg gtcatccatt ccacattaaa 1620 1680 agagcaagtt gtctgctgtg gtctgaatgt ttgtgtccca tccccacctc cctcccccac cagittatat gitgaaatoi taacoottaa ggitaataci toigootooa gaagtattat 1740 gaggtggagc cattaggagg tgattaaatc ataga 1775

<210> 629 <211> 1114 <212> DNA <213> Homo sapiens

<400> 629

geggeegetg etgaggegga gacteeeege egeegettee tecateeeca gteegeegge 60 ctegeggege tgcagggcgg ttgcgcqcag agetettece teeteettt tetteeteet 120 cetectecte eteegggtee eegecaqea eeceteqeac caggeggegg eggeggaqga 180 ggagagetag accegeegee ggggeacaac atggeggage ceteggeece ggagageaag 240 cacaagtegt cecteaacte gteecegtgg agtggeetea tggeeetggg aaacageegg 300 caeggecaec aegggecegg ggeceagtge gegeacaagg eggeggegg egeggegeeg 360 ccgaageegg ccccggcggc gtgctcacgg ggggctgtcg cagccggctg ggtggcagtc 420 gettetetee tteaceatee tetteetgge etggettgee ggetteaget egegeetett 480 540 egeegteate egettegaaa geateateea egagttegae eegtggttta actatagate aacacatcat cttgcatctc atgggttcta tgaattttta aattggtttg atgaaagagc 600 660 atggtatcca ctaggaagaa tagtaqqtqq tactqtttac ccagggttga tqataaccqc

tggccttatt	cattggattt	taaatacatt	gaacataact	gttcacataa	gagacgtatg	720
tgtgttcctt	gcaccaactt	ttagcggcct	tacatctata	tetaetttee	tgcttacaag	780
			agetgettgt			840
ctacatatct	cggtcagtag	ctggatcctt	tgataatgaa	ggcattgcta	tttttgcact	900
			tgtaaaaact			960
gtgctgctgc	ttatcctatt	tctatatggt	ctctgcttgg	ggtggttatg	tatttatcat	1020
caatcttatt	ccactgcatg	catttgtgtt	ggtactgatg	cagatacagc	aaaagagtct	1080
acatatgata	tagcactttc	tacattgtgg	gttt			1114

<210> 630 <211> 851 <212> DNA

<213> Homo sapiens

<400> 630 ttttttttt ttcagaatcc aaaaggactt tattttctgg cactgggagg cgccctgagg ccacagcett ttcccagggc tgctggcagg gtcccagggc tgctggcagg gtcccagggc tgctggcagg ggttgtggtc ctgttgagca gaggagcgac gccgctgccc tggcccccgc tgtccctatg atcctgcact ctggggtggg agctacatat catccttgga caccaggcag tagaagtetg tgegggeact gtagtttege gageegagat eegagaegte cacttegetg ctccggctct ctcccagcga gaccccactg gtgtgcggtg gagetgatgg ctctccaaaa acaggccccc ggacacccag gtcgccctca gggtccgggt ccacctctga gtccagggcc eggeceteag ggacteggee tegaagaate ageatggggt cettgtegte etgeagetge gtotgggggt otcottocac oggeotgtac egeacettoc geggeagego cagetgcact tetttecaaa aateggagga aggagteaeg gageegggee tecagageag eaaggteaee aggtggcggt gctggcgcag caggcggage gccgggtgcg cggggtcgcg cctctggccc togaaggtga tgaagatggg totgegggtg agetceagea geeggeacag geecteeetg cggggcggga ccgtcagggg ggtgggtgct acgctggggc ccacccaacc ccgcgcggga eccaceggaa getgtggetg caccaggeec ggeteaggaa ggegteegaa ageaecaega tgaggcgtcg g

60

120

180

240

300

360

420

480

540

600

660

720

780

840

851

<210> 631 <211> 1320 <212> DNA <213> Homo sapiens

<213> HOMEO SAPIENS

<400> 631 actegtgeeg tggaatteet gcattaaaga aaaageteet ggaggaetee tgaageetga 60 ggeageettg gggeageagt ggeteatggt ttacattgga aagaeggtge etcecateat 120 tetagecect cactgeetgg ggagetggag gettaaatge etgagaggag tgaggtgttg 180 aagaattgcc tgcatcccag ggatggagcg tggtggaaga ccaactcagt gcctcacagg 240 ggtaattgag teatgagggg tggagaagag ggegagaggg agagaggata aatagcageg 300 tggcttccct ggctcctctc tgcatccttc ccgaccttcc cagcaatatg catcttgcac 360 gtetggtegg etectgetee etecttetge taetggggge eetgtetgga tgggeggeea 420 gegatgaece cattgagaag gtcattgaag ggatcaaceg agggetgage aatgcagaga 480 gagaggtggg caaggecetg gatggeatca acagtggaat caegeatgcc ggaagggaag 540 tggagaaggt tttcaacgga cttagcaaca tggggagcca caccggcaag gagttggaca 600 aaggegteea ggggeteaac cacqgeatqq acaaqgttge ceatgagate aaccatqqta 660

ttggacaagc	aggaaaggaa	gcagagaagc	ttggccatgg	ggtcaacaac	gctgctggac	720
aggccgggaa	ggaagcagac	aaagcggtcc	aagggttcca	cactggggtc	caccaggetg	780
ggaaggaagc	agagaaactt	ggccaagggg	tcaaccatgc	tgctgaccag	gctggaaagg	840
aagtggagaa	gcttggccaa	ggtgcccacc	atgctgctgg	ccaggccggg	aaggagctgc	900
agaatgctca	taatggggtc	aaccaagcca	gcaaggaggc	caaccagetg	ctgaatggca	960
accatcaaag	cggatcttcc	agccatcaag	gaggggccac	aaccacgccg	ttagcctctg	1020
			ttcccgccct			1080
tcatgcccta	aactggcatc	cggccttgct	gggagaataa	tgtcgccgtt	gtcacatcag	1140
ctgacatgac	ctggaggggt	tgggggtggg	ggacaggttt	ctgaaatccc	tgaagggggt	1200
tgtactggga	tttgtgaata	aacttgatac	actaaaaaaa	aaaaaaaggg	ggggccgttt	1260
taaaggatcc	aagtttactt	ccccgggcat	gcgaggttat	agtttttta	tagggccacg	1320

<210> 632 <211> 3149 <212> DNA <213> Homo sapiens

<400> 632

cacttgattg	cagagaaggt	ctacagagca	gtggttagaa	cttggccctg	aggacagagc	60
ttttgctccg	tatgaggctg	gcaggtaacg	atcttctcag	ttttctccca	ggaattetgg	120
aacgatgaag	gtgatgattg	tgcctgtggc	caagaccggg	agaaccctgg	atccctacac	180
cttccccacc	cctggaatgt	cactatacat	atctgacttc	ttctgatgtt	gcctttgacc	240
ctaaagtcaa	tatgataaag	taacaagaag	ctgggacaga	ggaacaaaca	cagcccactc	300
aagcagtggt	ggcaacattc	tgttagaaag	gaggggagtc	aaagaaaaaa	acacccctcc	360
gcccatctcc	ttatcacctc	cctaaagaca	gaggagaaca	tggacaccct	ccatcctgat	420
agacatgcca	tgtggtcagt	ttgtgcggta	aacaggaaaa	aaaaaaaacc	taaagatatt	480
gtagaccttt	attttcttta	aatctcctaa	taaaaacatt	aaactttcaa	gaagattcca	540
aactgacatt	gcatagacca	actcctttcc	aaaaatatct	ctgatatact	ctccaactct	600
ctcaatatat	agaatttgaa	gtccaggagc	tgtgggcacc	tggtgggaat	tcactgagct	660
	agagggctga					720
cctctggttc	cagccagcat	caatttggtt	gtggccaaat	tctcagtcca	atcaccctgg	780
cccagggcct	ggcgtgggag	gatgtggcag	gctctgtctc	cttctggggt	tectggtetg	840
	cccaacagcg					900
aatgagaggc	aaatctaccc	tgaatgcacc	tecetectag	gctgggtgag	gtcacgcaga	960
	caggacagaa					1020
ggtcagcttc	ctttttaaag	tgccagtatc	ggtggggcag	gaagggactc	tcagggctga	1080
	ctccagcgcg					1140
ttcattttct	aagggttagg	tgagtaaaac	aacaacaaca	aatgctggaa	atgctctgtt	1200
	gggagttcca					1260
	aggaaccctc					1320
	acggacacca					1380
gcagaaaagc	agcacctccc	ctcaccaggg	cgaggaggca	atattgaacc	gtgaactcaa	1440
gaagaaagac	ggaaagaaaa	aatgaaaaaa	gctacagggc	taagtaaaca	ccagcctgct	1500
	aaaatgagtg					1560
ggcagccaga	acccaccttc	aagcaagtta	caaggacttg	ggggaaagtg	ctgagagcag	1620
	agggggcagg					1680
	ccttgcccag					1740
taaggaagcc	agctccggac	cagtccagcc	acagcccacc	tgcctctatg	gcatccgccc	1800
cagtetggge	agctgaccct	gagggcagag	aaggactttg	cttgctccaa	ccttcctgca	1860
	ctgctcagga					1920
tctcagcacg	ggtctcagac	ctgagctgga	gctaactgga	ggaagaggca	gcacccgttc	1980
	gctggaccct					2040
	tcagggaagg					2100
	caggctgcaa					2160
gatctggagt	gtgggtgggg	tctgaggtca	tggctcccag	gaagaggccg	ccagcaggtc	2220
ccccaggaca	caaggaaggg	acagctgaag	cactaagcag	tcagacagtc	acaggtggca	2280

ggattccgga	ggcggtctgg	ccccccacc	accagggcaa	gggaacaacg	gagcaaggcc	2340
ctgctgctaa	gacgtgacca	aagccagtgc	tcctggagtg	agtggggaca	caggtagaga	2400
ggccccctca	gccacaggca	tctctacatt	taggagetge	tgcatgtcct	cagccagagg	2460
gctgggtcag	tctccagcag	cgccggtcct	tgccagctcc	ttcttgccca	caagetgcae	2520
gggcccgcct	ggcctgcctg	gcctgccctc	tagtggttca	gaggagaata	ttcacagtgg	2580
tgcctgggcc	ttggtgggcc	aggagggtcc	cagcatggat	gggagggca	atggaatgat	2640
gctacgggga	gtgtggactg	gagtgcatgg	aggaggcatg	gatgagatgt	ggcgcagagg	2700
tgatctgaag	gggaaagttc	ctcatggaat	gatacaggtc	tggactccag	agaaagcagg	2760
actcttctcc	agcccggaca	cctgctcctc	aatggctttc	aatcacaact	ggctcgtaga	2820
ccccagaaga	gaccctggtg	gcaagctgga	tgccgctcag	cgtggcagag	ccategegge	2880
tcacgaacag	ccggaggttg	ctgtcctcgg	tgttgctgcc	atctgtgaag	teetggetet	2940
gcacgatett	ctccacgatg	gcatccgcat	cgatccgcgt	gtcgtccacc	caggtcgggt	3000
ggctctccac	cgagtccttc	ttccgcctga	aagagcgatc	ggacagatgc	aggggccggg	3060
gtggccgcgg	eggettetee	gggggccggt	geteeegete	actgccctca	gggccctcca	3120
cggtcatgcc	aaggccccca	gaggcgctg				3149

<210> 633

<211> 1841

<212> DNA <213> Homo sapiens

<400> 633

caqttttqqa aaaqtgagct ctcggttctg ctctgagatg ggcagagaag atgcgggcca ggagacttac tcaggtggga ctgggcacag ggcaggtatg tgggaggetg ggctgcttag 120 tgtettetag teacetetge ttgggetgat tgacagaggt cagteattac ageccettat 180 gcctcttcca tggqaacaaa tactgtgcag atgtttgtaa gttaaacata agacacaggq 240 getgttgett ttgaacagaa cectatatta eteteetggg atetgagttt etgeaggtea 300 tttgtatgta ggaccaggag tatctcctca ggtgaccagt tttggggacc cgtatgtggc 360 aaattetaag etgecatatt gaacateate eeactgggag tggttatgtt gtateeccat 420 cttggctggc ttcagttttt gctgtagccc tagagcactt tgtttgtggg aggctggcct 480 cttgcctacc tccttgcatg gacaggggga tgaatattta ctttcccacc tccttgcttt 540 ttettteact gataceactg aatggaactg gtgetgtgac teetgetget ggggatttat 600 gtcccgagac cttagcctgg ctgagtggag cctgagacct gcacaacagc tcatggtcat 660 gcatgagaga gaagtggctg gccacagcca gagggaacag taacagccca ggggccttta 720 ttttgggaaa ggctgtccgg ggctgttact gtctcttctg gttataaagc agacatgtgg 780 ccatcttttc cgcagggtta gagtgggctc ctttcttttt ggaatccttt tcttctcctt 840 tggtagcagc tecetgeete cagggettee gecaccageg tetetgetgt gttgegcagt 900 gcagtgggt gcaagggctt tgtttctgcc ctgcctgaaa gagagggctc tggggatgga 960 gatgagaaac aacacgetet cetteagaca atgaggeatt etgteeteet getgeecatt 1020 cttcatctcc actgagagcc cagagtctgg taggagccga agttgccaca ggcattctgc 1080 attgetetae tettaggttt gtgtgtgtga teetteeeet eeetgttege eeacteetee 1140 ctcctctggc tattcctaac cctgttctgt ggggctcttt taataaccag cctatggttg 1200 tggggaattg ttcatgggca tttagttcca gagtggaggg gctttggtcc tgaaataaaa 1260 tgcaagtatt taagattgtt gttgcaattt gtgtctaaca agctgtagca gagaaggagg 1320 gaqtqagcgc tggcagtatt tcctttcata aatcatqaat ttatcagtgt ggaaataatq 1380 cttcaqaact gtgctctgta gccctcctgc attgtgtgtg cagctcaagt tcaccactgg aggaaggatt ctcttccaaa qagctgggat ccaactcttc tcacagttct gggcgtgaac cttgttaggt atactttacc tgatgctgct tccatcctcg cagtctgtct gaggtgccag 1560 gtgctgaaag agaaataaag tttgtcaaca ggcagatgca aagccctggc tggtattcat 1620 coctetttee tgecegeete ceetgggtet eteetttata tgatgcagca gagcaaggeg 1680 aggatagaaa acctacagag gcaaatccaa aatgtcagaa gaagttcatt taaaagggga 1740 1800 totgoogatt ggtggggatg gctcatgaat attaatgage t 1841

<210>	634	
<211>	1324	
<212>	DNA	
<213>	Homo	sapiens

<400> 634 cgattccgga gagggagcct gagaaacggc taccacatcc aaggaaggca qcaaqcqcqc 60 aaattaccca ctcccgaccc ggggaggtag tgacgaaaaa taacaataca ggactctttc 120 gaggeeetgt aattggaatg agtecaettt aaateettta acgaggatee attggagge 180 aagtotggtg ccaqcaqccg cqqtaattcc aqctccaata qcqtatatta aagttqctqc 240 agttaaaaag ctcgtagttg gatcttggga gcgggcgggc ggtccgccgc gaggcgagcc 300 accgcccgtc cccgcccctt gcctctcggc gccccctcga tgctcttagc tgagtgtccc 360 geggggeeeg aagegtttae tttgaaaaaa ttagagtgtt caaageagge eegageegee 420 tggataccgc agctaggaat aatggaatag gaccgcggtt ctattttgtt ggttttcgga 480 actgaggcca tgattaagag ggacggccgg gggcattcgt attgcgccgc tagaggtgaa 540 attottggac cggcgcaaga cggaccagag cgaaaqcatt tgccaagaat gttttcatta 600 atcaagaacg aaagtcggag gttcgaagac gatcagatac cgtcgtagtt ccgaccataa 660 acgatgooga coggogatgo ggoggogtta ttoccatgac cogcoggoa gottocggga 720 aaccaaagto titgggttoo ggggggagta tggttgcaaa gctgaaactt aaaggaattg 780 acggaagggc accaccagga gtggagcctg cggcttaatt tgacccaaca cgggaaacct 840 cacceggee ggacaeggae aggattgaca gattgatage tetttetega tteegtgggt 900 ggtggtgcat ggccgttctt agttggtgga gcgatttgtc tggttaattc cgataacgaa 960 cgagactetg geatgetaac tagttacgeg acceegage aggagaacag caetgtagge 1020 atgaagatcc aggaggagct gcaacgttcc gggggcctgg accacctcgt actctcacca 1080 ggagaatggc ccgtgagtga caacaccatc atgcacatcg caaccgccga ggccctcacc 1140 acagactact ggtgcctgga tgatctgtac cgggagatgg tgagatgcta tgtggaaatc 1200 gttgagaagc ttccagaacg ccggccagac ccagctacca ttgaaggctg tgctcagcta 1260 aagcccaata actacettet egeetggeac acacegttea atgaaaaagg etcagggttt 1320 ggag 1324

<210> 635 <211> 519 <212> DNA <213> Homo sapiens

<400> 635 occacgogto oggagoactt tattttttt caagttattt tttqcattqt tttqqaqtaq 60 ottogaataa taaacacata tttotgottt aaatttttaa tagttaacta cattcatggg 120 acaaccaaag caagaaagcc tcatgttttg ggggaaagtt tgatatcagc aatgtccaga 180 caagagccaa agatgtttgt cttgctctat gttacaagtt ttgccatttg tgccagtgga 240 caaccccggg gtaatcagtt gaaaggagag aactactccc ccaggtatat ctgcagcatt 300 cotggettge etggacetee agggeceeet ggageaaatg gtteecetgg geceeatggt cgcatcggcc ttccaggaag agatggtaga gacgqcaqqa aaggaqaqaa aqqtqaaaaq 420 ggaactgcag gtttgagagg taaqactqqa ccqctaqqtc ttqccqqtqa qaaaqqqqac 480 caaggagaga ctgggaagaa aggacccata ggaccagag 519

<210> 636 <211> 1396 <212> DNA <213> Homo sapiens <220> <221 misc_feature <222> (1)...(1396) <223> n = a,t,c or g

<400> 636 ttgaaaccag caccttccct ttctctgagt cctgcctcct tctgcagaag ggagctcaaa 6.0 agaacttigt igittigcci titactcigg ggigaaageg geaggaggia igigagatgg 120 tgaaatgatt tgcttctgcc atgctggggt cacgggtgga tcgccctaaa ctctcggtgg 180 coccctcagt agtitiggaa gaggaccaag teetigtete tecagcagtg gacctggaag 240 caggatgccg gctcagggac ttcactgaga aaataatgaa tgtcaaagga aaagtaattc 300 tgtcaatgct ggttgtctca actgtgatca ttgtgttttg ggaatttatc aacagcacag 360 aaggetettt ettgtggata tateaeteaa aaaaceeaga agttgatgae ageagtgete 420 aqaagqqctq gtggtttctg aqctgqttta acaatgggat ccacaattat caacaaggqq 480 agagettegg etatgggaet ggtttaatee aaacttgaag gaateegaat aactaaactg 600 gactotggtt ttotgactca gtoottotag aagacotgga otgagagato atgoggttaa 660 ggagtgtgta acaggcggac cacctgttgg gactgcgaga ttctcaaggg gaaggactgg 720 gteteattte teccatetea gegettagea ggatgaeetg gtatagagea gggaaetggg 780 asatgtgggt caggggatca gacactccag ttgggtcttt tatatasatt asatggcasa 840 aggetecata ceetteteet tettteetae eetecaettt atetgeaaaa tgggaatgat 900 gataacaccc acttcataga atggtcatga agatcaaatg agagaataaa agtcaagcac 960 ttagcctctg gtgcacaata agtattaaat aagtatacct attcctcctt ttcctttttt 1020 taaaataata ttaccaaatg tccaqcttat acacatttac aagacttagc tagtgggcta 1080 tgttagaget actaaaagat etttgacaag etaaaactaa gatgcaatga atgaggtgta 1140 acgaacaaga gagttttaag ttcagaaatg gttacagaag tataagacag ctgtgtgggt 1200 1260 gttttttggt ttttggtttc tggtttacaa tctcgtcatt caacaaagat gggagtttta

tagaactaaa agcaccatgt aagctactaa aaacaacaac aaaaaaggct catcatttct

cagtotgaat tgacaaaaat gocaatgcaa ataaaaatga ttacttttta ttttaaaaaa

1320

1380

1396

<210> 637 <211> 1475 <212> DNA

aaaaaaqnaa aaaaaa

<213> Homo sapiens

<400> 637 attecegggt egacgattte gtggeegtee ggeeteeetg acatgeagat ttccacceag 60 aagacagaga aggagccagt ggtcatggaa tgqqctgggg tcaaagactg ggtgcctggg 120 180 agetgaggea gecacegitt cageetgqee agecetetgg acceegaggit tggacectae tgtqacacac ctaccatgcg gacactette aaceteetet ggettgeeet ggeetgeage 240 cctqttcaca ctaccctqtc aaaqtcaqat qccaaaaaaq ccqcctcaaa qacqctqctq 300 gagaagagte agttttcaga taageeggtg caagaceggg gtttggtggt gaeggacete 360 aaagetgaga gtgtggttet tgageatege agetaetget eggeaaagge eegggacaga 420 cactttgctg gggatgtact gggctatgtc actccatgga acagccatgg ctacgatgtc 480 accaaggict tigggagcaa gitcacacag atcicacceg totggcigca geigaagaga 540 cgtggccgtg agatgtttga ggtcacgggc ctccacgacg tggaccaagg gtggatgcga 600

```
getgteagga ageatgeeaa gggeetgeae atagtgeete ggeteetgtt tgaggaetgg
acttacgatg atttccggaa cgtcttagac agtgaggatg agatagagga gctgagcaag
                                                                    720
accytgytcc agytgycaaa gaaccaycat thogatyyct togtgytgya gytotygaac
                                                                    780
cagetgetaa gecagaageg egtgggeete atecacatge teacecactt ggeegagget
                                                                   840
ctgcaccagg occggotget ggcotoctg gtcatcccgc etgccatcac occcgggacc
                                                                   900
gaccagetgg geatgtteac geacaaggag tttgageage tggeeceegt getggatggt
                                                                   960
ttcagcctca tqacctacqa ctactctaca qcqcatcaqc ctqqcctaa tqcaccctq
                                                                   1020
tectgggtte gageetgegt ecaggteetg gaceegaagt ecaagtggeg aageaaaate
                                                                   1080
ctcctqqqqc tcaacttcta tqqtatqqac tacqcqacct ccaaqqatqc ccqtqaqcct
                                                                   1140
gttgtcgggg ccaggtacat ccagacactg aaggaccaca ggccccggat ggtgtgggac
                                                                   1200
agccaggtet cagageactt ettegagtae aagaagagee geagtgggag geaegtegte
                                                                   1260
ttctacccaa coctgaagto cotgoaggto cooctgaage togoccogga octgogeett
                                                                   1320
gggteteta tetgggaget gggceaggge etggactaet tetacgacet getetaggtg
                                                                   1380
ggcattgegg cetecgeggt ggacgtgtte ttttetaage catggagtga gtgagcaggt
                                                                   1440
qtqaaataca qqcctccact ccqaaaaaaa aaaaa
                                                                   1475
```

<210> 638 <211> 1131 <212> DNA <213> Homo sapiens

<400> 638 gagtggtaaa attcacagaa gttccaggtt catcatgtca ggatcattcc ttgtgcaaag 60 tttgatgtag atgaagataa agtggtttet tggteaataa ttgeaattge tttettttaa 120 agtcagtggg titcttgtat agttctatta caattggccc aagtttaatt tcatccatct 180 ccatgaaagc aaaacacttg gtgctggtaa acctttttt aggcttgtag tgtttgaatt 240 casagaagat agetgeacet ttggttaatt tttcaacatg ettetggage tcaatgteca 300 cattaaaatg aacatatgta tottotttto ttgaagccac aggagtatot tgcacaggag 360 ttaagtotat gocattoaga tootttacac taactgtaat atagggattg atgcactgcc 420 cagcatcttt caaaccaatt ttctcaattc tgatagtgag taatgtcatt cctggttccg 480 atggcaacct tggtaataaa gtaccgggaa ctctagcagg aaaagaatca ggagaccctg 540 ctccagcacc accetettet teatettett caaattecaa attetettet teaccaggtg 600 ccaaaattct tcttaatggg acaggctgaa catcaaatgg gaattcttta ttatatgtaa 660 gastattett taggattggt tetagettet teaggteete cagtttaaat tettettgag 720 actigtigtigga ctigtaaagct gcacttegca attecaagca tgttgcaatt ttgcctatgg 780 ttttettttq ttettetqtq aatteaqaat tattqtqttq agettqqqee teettttqta 840 gatgtettge taatatetga taetegteta tegeeteeac cagetggeec caagagtega 900 agteggege tetectagaa etggegege agegetgeag cagaeteegg gteaceteeg 960 acatggcogg tececacece gtececteec gecectacec cageaaggee qgqttetagg 1020 gegecatect ecceegget ggeceegaca ttaacaggge caggaggaac egetacgge 1080 accacegeca ceegeegagg ageegeecaa geceatttge egeecatgta t 1131

<210> 639 <211> 1844 <212> DNA <213> Homo sapiens <220> <221> misc_feature <222> (1)...(1844) <223> n = a.t.c or g

<400> 639 cagaactntg ggagtccgag gcagacagat cacctgaggt caggagctca agaccagcct 60 gaccaacatg gcgaaaccct gtegecacta aaaacacaaa attaggeetg gtggegeatg 120 cctgtaatcc cagccactcg gtaggccgag gcaggagaat cgcttgaacc caggaggagg 180 gaggttgcgg taaactqaga tcgcgccatt qcattccaqc ccqqqcacca aqaqcaaaac 240 teggteteaa ataaataagg etetaacaat tgtteteata ttttaacate cacaatgtga 300 ttcaagatgt aatcaacata aagcttgatt gcattatttt gcatgctaag ttttccaaat 360 ccagcttcgt gtcacaccta cagcacatct cactcaagct ggccacatcc ctgccatcca 420 gacgtaaaac agtcacaaga cagggctggc agggccgcg aggaggccgg caggggccat 480 cacqqaqtgc ccatcctgca ctgtggtccc agcaagtttc ttcctcctgg caagaagcct 540 gtcccaggct ggcaggggac agcgtgaggt gcagcctatg gactgggaaa ggggtgtgga 600 agggccacac ctaagtccta aaatccaggc ccaaaagtgg cccaactcac ttctctgact 660 ttaatcacac aggcataccc ggtggcaaag gagtatggga aatggagtca ggctgggtag 720 ccacgagece aggaagaagg gagaacagae ttggagaggg caggagtete tggccaccag 780 gggetaaaga geettegatg aggeagtgat gtggggteet gggeteagae ceagggtggg 840 tggctaaggt geeettgcca ggacttagce accccaacag agatgggttt egtgcccacq 900 agagtgcctg tgccttgtga cgagaattca ccatgttttt gtctctgcag gcagagaaca 960 gcattgactt catcagcagg gagctgtgtg cgcattccat caggaagctg caggcccatg 1020 teetgttgat caagtgagte tggacecate ecetteagte accececaag gagacatggg 1080 egecaggaat eteegggagg gggeeetgge atgaggetee aagttetetg egtgtegace 1140 acategetaa gacteaagat ettttttggg aageceeet ggeageaggg teatggaagg 1200 aggaaggtca gaggaggga gggctcaggc agcaggggat gggccggggc tgtcccatgc 1260 ctttccacag gtgtcagcgg ggggcatgcc caggtaaggc tccataacca gtgagcccag 1320 tetegactea etgeaacete tgeeteetgg atteaaacga tteteetgee teageeteee 1380 gagtagetgg gaetacagge gecegecace aggeetgget tatttttgta tttttagtag 1440 agacgaggtt tegecatgtt ggccaggetg etetecatet cetgacetea tgatecgeet 1500 gcctcggcct cccagtgttg ggattacagg cgtgagccac cgtgcgtqqc ccaccataqa 1560 caatttttaa gccataaaaa gaaacgaagc actgacacgg gctccagcat ggatgaqcct 1620 ttaaaacatc gcgctaagtg gacgaattca gacacaaccg tctacgtgtt gtatggctgc 1680 atteacgtte aagteaagte caaataggge acactgeaga gacaaageea ggteatggtt 1740 gctcaggacc ggaagcctgt tgggggtggq ggggtqqqqt qtqtqtqtqt qtqtqtaaaqc 1800 tcagaggttt gcgatttctt tgggggtgat gaaaatgtaa ttgt 1844

<210> 640 <211> 1210 <212> DNA

<213> Homo sapiens

<400> 640 ggaagtagga ggagagtcag gactcccaqq acaqagagtg cacaaactac ccaqcacaqc 60 ecceteegee ceetetggag getgaagagg gattecagee cetgecacec acagacacgg 120 getgaetggg gtgtetgeee eeettggggg gggggeagea cagggeetea ggeetgggtg 180 ccacctggca cctagaagat gcctgtgccc tggttcttgc tgtccttggc actgggccga 240 ageccagtgg teetttetet ggagaggett gtggggeete aggacgetae eeactgetet 300 cogggectet cotgeogect otgggacagt gacatactet gcctgcctgg ggacatcgtg 360 cctgctccgg gccccgtgct ggcgcctacg cacctgcaga cagagctggt gctgaggtgc 420 cagaaggaga ccgactgtga cctctgtctg cgtgtggctg tccacttggc cgtgcatggg 480 cactgggaag agcctgaaga tgaggaaaag tttggaggag cagctgactc aggggtggag 540 gagectagga atgeetetet eeaggeecaa gtegtgetet cetteeagge etaceetaet 600 gecegetgeg teetgetgga ggtgeaagtg cetgetgeee ttgtgeagtt tggteagtet 660 gtgggetetg tggtatatga etgettegag getgeeetag ggagtgaggt acgaatetgg 720 tectatacte ageccaggta egagaaggaa eteaaceaca cacagcaget geetgactge 780

agggggctcg	aagtctggaa	cagcatcccg	agctgctggg	ccctgccctg	gctcaacgtg	840
tcagcagatg	gtgacaacgt	gcatctggtt	ctgaatgtct	ctgaggagca	gcacttcggc	900
ctctccctgt	actggaatca	ggtccagggc	ccccaaaac	cccggtggca	caaaaacctg	960
gtgaggcctc	ccccttccca	agtccattcc	cactgtaggc	cgatgcctgt	gcaaaggacg	1020
cagtgccata	tcagagagga	tccttgaaga	ggactcaccc	caagcaaggg	aaaattggtg	1080
ggggaacttc	tgccttcctg	gtttccttga	ctttggcctc	ctcctcttcc	tccttatctt	1140
ctccaacctc	cttcctttat	ttgttccaca	gactggaccg	cagatcatta	ccttgaacca	1200
cacagacctg						1210

<210> 641

<211> 1108 <212> DNA

<213> Homo sapiens

<400>	641					
catatgaaca	tttcaataaa	ggtagaaaaa	gcacttgata	ttgaatgctt	tcctcttgat	60
tttacaacca	agacaaggaa	gtccattatc	actatttcta	ttcaatagtg	gacatactag	120
ccagcaacaa	aactaaaagg	tataaagatt	acaggaaagt	taaaccatct	ctattcacag	180
actgcaagat	tgtaatcaca	taaattccaa	aagactctac	agactctaca	gtcccacggc	240
agccccttcc	teegegeege	ggeggegeet	ccggcccacg	tcacgctcgc	gccattgttt	300
cccagccgct	gctcgctggg	accccgccag	ccctcgagcg	cggccattcg	ccgcgttctg	360
ccctctcccc	cctttcctca	cgctggtggt	ggccctttcc	tcagtcctgc	tgatgtcctc	420
cagctgattc	caggctgttc	ccggccaccc	ctgaggccgt	cctttcgctt	cttgtaaaag	480
cctccccgcc	tcctgagete	cctcggtcgc	ctcccgagaa	gccaacgggc	ctctctggtg	540
gagcgctagg	ttgacagcgt	tttagcagga	ccgcgagaaa	ccggggagat	cctcttacga	600
ggaaaaactc	caagattaca	tccctgttat	ctttcctcca	agtagtttct	gatcataagt	660
tatttgttta	aaaatgatgt	tttaattaga	atttatttga	tggcttttaa	aaaactttta	720
ctgacactca	acatgtttgt	ttttgtagga	actgactaag	actttggaac	agaaaccaga	780
tgatgcacaa	tattatcgtc	aaagagctta	ttgtcacatt	cttcttggga	attactgtgg	840
tgcagatgct	aatttcagtg	actggattaa	aaggtgtcga	agctcagaat	ggctcggaat	900
ctgaggtgtt	tgtggggaag	tatgagaccc	tcgtgtttta	ctggccctcg	ctgctgtgcc	960
ttgccttcct	gctgggccgc	ttcctgcata	tgtttgtcaa	ggctctgagg	gtgcacctcg	1020
gctgggagct	ccaggtggaa	gaaaaatctg	tcctggaagt	gcaccaggga	gagcacgtca	1080
agcagctcct	gaggataccc	cgccctca				1108

<210> 642 <211> 2418 <212> DNA <213> Homo sapiens

<400> 642 60 cggagattcg tacgagcggc accatggccc cgcgggggcg gcggcggccg cggcctcaca ggtctgaggg cgcaagacgt tcaaagaaca ctttagaaag aacacattcc atgaaagata 120 aagctggtca aaagtgcaag cctattgacg tgttcgactt tcctgataat tctgatgtct 180 caagcattgg caggctgggt gaaaatgaga aagatgaaga aacttatgag acctttgatc 240 ctcctttaca tagcacagct atatatgctg atgaagaaga attctccaaa cattgtggac 300 tgtctctctc ttcaactcct ccaggaaaag aagcaaaaag aagttcagac acttctggaa 360 atgaagcaag tgaaatcgaa totgtaaaaa ttagtgcaaa aaagccagga agaaagctca 420

	tgatgactct					480
cagcagagaa	aataagtaca	caacgtcatg	aggttattcg	aaccacagcg	tetteagaae	540
tttcagagaa	accagetgag	tctgtcactt	ctaaaaagac	aggacccctt	agtgcccagc	600
cctctgttga	aaaagagaac	ttggcaatag	aaagtcaatc	gaaaactcag	aaaaaaggg	660
aagatatete	atgacaaaag	gaagaaatca	agaagtaaag	ccataggete	agatacttct	720
gacattgtgc	acatttggtg	tccagaagga	atgaaaacca	gtgacatcaa	ggagttgaat	780
attgttttgc	ctgaatttga	gaaaacccac	ctagagcatc	aacaaagaat	agaatctaaa	840
gtttgtaagg	cagccatcgc	cacattttat	gttaatgtta	aagaacaatt	catcaaaatg	900
cttaaagaaa	gccagatgtt	gacaaatctg	aaaaggaaga	atgctaagat	gatttcagat	960
	aaaggcagcg					1020
cagctgaaac	aactacaaac	aaaatatgat	gaacttaaag	agagaaagtc	ttcccttagg	1080
aatgcagcat	atttcttatc	taatttaaaa	cagctttatc	aagattattc	agatgttcaa	1140
geteaagaae	caaacgtaaa	ggaaacgtat	gattcatcca	geettecage	tetgttattt	1200
aaagcaagaa	cacttctggg	agccgaaagc	catctgcgaa	atatcaacca	tcagttagag	1260
aagctccttg	accagggatg	agaagagcag	tctactaaaa	tgtgcctata	ggaagactag	1320
tctcatgctg	ttaccttctg	aaactgtacc	tttataaatc	aattgttttg	caaagaagtt	1380
atggcctact	tagaatctaa	aatttgttat	tcaaattaaa	tggctgtgaa	caatgttaaa	1440
tagcatcagt	ttgtccaata	gttttaaagg	ccataatcat	cttttctggt	taatatettg	1500
agtaatttta	aaatgttgac	accttaatcg	gtcccaggta	tgagctataa	taaacttgta	1.560
	gatgtgaaca					1620
caccaaagct	aatttttaat	gaaattgggt	ttacaggaag	gtaaaaaaca	aaaattggga	1680
aaggcaaagt	aataaaactt	agtttatata	aacaggttga	atgatatatt	tatcaaatct	1740
cacagacatc	aggcaaatta	tagcctggtg	acaaaagtgt	tcatagtgaa	ttagttactc	1,800
	tctataatta					1860
aagactgttc	tctgcagett	cagctaattc	agcatcttca	gtagcttcta	aaaaataagc	1920
	ccattatccc					1980
	tgaggattct					2040
	teetetttga					2100
	aagttttttg					2160
	tcaaccagaa					2220
	aaacaaaatc					2280
	aattaaaaag					2340
	tcacacaaaa	tgaactgcag	ggcaaaaagt	agatactgat	gaaagttccc	2400
ccaggaagat	gtaacaat					2418

<210> 643 <211> 1166

<212> DNA

<213> Homo sapiens

<400> 643 atgttoccac gaaagcgata ttoccgtcca cccagtgtaa aacgccggcc cgtgcccttg 60 cttattatta agcatccatt taggggaaag gtttcaatgc gccgtcccgt gttaagatag 120 ggececceaa ggaacettta aaaaggeee eeettttt ttttttgaa agtataaaaa 180 tcattttact ttaatacaaa atcacataaa gaaaggcatg ttggctaaat caaatattca 240 ctaaatatca gtgaagtcac cactggaatc teaatageac attttcctgc tttcttttct 300 cccttctgct aaccattgaa gaccagggtc atccgtggga gcagatgagt aggacacgcg 360 420 tetgeacget ggaggeeetg ggggttgaea tgggageagg aagtggaeee ceecaccetg cacatecett etgittitet tgattteagt eteaetggee eaggecaaat etteaagggt 480 gtctagttct gcagccaggg agaaagtgat gccaagagaa cctcgtctcc tccctcctca 540 gtctgctttg aaggggaaat aaatacacag gcctagtgtg tctgtgtggc acagggaggt 600 660 ggtttttgeca ggcatcttgg aaggttgtet tetagaatea gagecatage ettacttgtg geettggate taggtetgtt teecegateg aaaaaagaac agetttttta tgattgtett 720 780 ctcetcettg ttcetgecag catttttgge actagtaace acageatett tttetettet tectectggg cettetettg gtqqaatcag gccactcccc gctggccgga gggctctgtc 840 tecgeagece etecacetee tteetgaggt ggtecetete catetteage tectecageg 900

<210> 644 <211> 1024 <212> DNA <213> Homo sapiens

<400> 644 ccccqaaatq accaccqtct cacccaatca agacqtqatt catcaagtaa gacccqcqcc 60 tttctqqtcc ccaqqttcct tcccqctcac qccqqaqtca cttccqaaqa qaqaaccqcc 120 atgaagagag aaggggtge egeceacete tgeteegaca geeteeegga gteeeageag 180 caaqacqqca accacgcacc caacttetec agccacgget catgecgccg togccagogg 240 egeegacatg acaaggeget geatgeeege taggeeaggt tteeceteat ceccageece 300 ggggtegteg ecceegeget gecatetgag acceggtagt accgeccatg etgeageggg 360 aaagagaaca gagagtootg gggacaggta cogtgcagag ggottgagaa ggggcogggt 420 egeggggga agggtatgag gggagggetg cagacegeeg etettecagt tecegecate 480 ctecgegage teaggegttg geattteggg geetggeaaa teecegeeee geetcegege 540 aggggctact gggagttgga gtttgcttct ctgtagttgg gcagctgctc ttggtctagt 600 gaccaccago ctggacagot acggagaaco cgccttaggt agaaagaaag tgatttttt 660 cctttgcaag agtttgaccc gggaccctaa ctgcttaatg catatttaga tcgttttctg 720 tacqttqtca qttctactqa tcctaqtqqt ttaqtaatat aaaccttttc tatqttqtqq 780 gtgaaattat gtaacctgtg atgagggaat cocttocacg aattactttg tagtccageg 840 tgcacgctag ttcatactta aaagaacttg cagatttgga atgtgacgtg ttttctcttt 900 cagtaacttc gacgcctctc caagaggcta atttttttt aaagattttg tgggagctat 960 gtaatgagat ggggagtttc atctaatgac atcctctgac aataaaacat gtttaaattc 1020 ccta 1024

<211> 499 <212> DNA <213> Homo sapiens

<210> 645

<400> 645 acccaegegt cegaaaagag cagagetace atgteetett ggageagaca gegaceaaaa 60 ageccagggg geatteaace ceatgtttet agaactetgt teetgetget getgttggca 120 gcctcagcct ggggggtcac cetgagcccc aaagactgcc aggtgttccg ctcagaccat 180 ggcageteca tetectytea accacetyce gaaateeceg getacetyce agecgacace 240 gtgcacctgg ccgtggaatt cttcaacctg acccacctgc cagccaacct cctccagggc 300 geetetaage tecaagaatt geacetetee ageaatggge tggaaageet etegeeegaa 360 ttcctgcggc cagtgccgca gctgaqqgtq ctqqatctaa cccgaaacgc cctgaccggg 420 etgeccegg geetetteca geeteagee accetggaca ecetggtatt gaaagaaaac 480 cagetggagg teetggagg 499

<210> 646 <211> 709 <212> DNA <213> Homo sapiens

<400> 646

ctgacttaca getettataa actagtggea atttetgaac ccagecqqet ccateteage 60 . ttctqqtttc taagtccatg tqccaaaggc tgccaggaag gagacgcctt cctgagtcct 120 ggatetttet teettetgga aatetttgae tgtgggtagt tatttattte tgaataagag 180 cgtccacgca tcatggacct cgcgggactg ctgaagtete agttcctgtg ccacctggte 240 ttotgotacg totttattgc ctcagggcta atcatcaaca ccattcaget cttcactctc 300 ctectetgge ccattaacaa geagetette eggaagatea actgeagaet gtectattge 360 atotcaagoc agotggtgat gotgotggag tggtggtcgg goacggaatg caccatottc 420 acggaccege gegeetacet caagtatggg aaggaaaatg ceategtggt teteaaceae 480 aagtttggaa atttgacttt ctgtgtggct ggagcctgtc cgaacgcttt gggctgttag 540 gggtaagtca aaagtgcatt ccccctgcc tcacacattt ttttggttca gccccccac 600 ttgtcttttt gctcctggtc attcagaact tgcagaagaa tcaacagagt ttttacttga 660 tgaaatggtc ctaataaact gcttttttat tcttqctaqq aaaaaaaaa 709

<210> 647 <211> 1498 <212> DNA <213> Homo sapiens

<400> 647

tttogtgogg gggtgggotc tgcgcgtaat ggcagcgccg tggcctcgcg tccatctttq cogttototo ggacotgtoa caaaggagto gegeogeege egeogeecee teecteeggt 120 gggcccqqqa qqtaqagaaa gtcagtgcca cagcccgacc qcqctqctct qaqccctqqq 180 cacqcqqaac gggagggagt ctgagggttg gggacgtctg tgagggaggg gaacagccgc 240 tegageetgg ggegggegga eeggaetggg geeggggtag getetggaaa gggeeeggga 300 gagaggtggc gttggtcaga acctgagaaa cagccgagag gttttccacc gaggcccgcg 360 ottgagggat otgaagaggt tootagaaga gggtgttooc totttogggg gtootcacca 420 gaagaggttc ttgggggtcg cccttctgag gaggctgcgg ctaacagggc ccagaactgc 480 cattggatgt ccagaatccc ctgtagttga taatgttggg aataagctct gcaactttct 540 ttggcattca gttgttaaaa acaaatagga tgcaaattcc tcaactccag gttatgaaaa 600 cagtacttgg aaaactgaaa actacctaaa tgatcgtctt tggttgggcc gtgttcttag 660 cqaqcaqaag ccttggccaq ggtctgttgt tgactctcga agagcacata gcccacttcc 720 tagggactgg aggtgccgct actaccatgg gtaattcctg tatctgccga gatgacagtg 780 gaacagatga cagtgttgac acccaacagc aacaggcga gaacagtgca gtacccactg 840 ctgacacaag gagccaacca cgggaccctg ttcggcgacc aaggagggg cgaggacctc 900 atgagccaag gagaaagaaa caaaatgtgg atgggctagt gttggacaca ctggcagtaa 960 tacggactct tgtagataat gatcaggaac ctccctattc aatgataaca ttacacgaaa 1020 tggcagaaac agatgaagga tggttqqatg ttqtccaqtc tttaattaga qttattccac 1080 tggaagatcc actgggacca gctgttataa cattgttact agatgaatgt ccattgccca 1140 ctaaagatgc actccagaaa ttgactgaaa ttctcaattt aaatggagaa gtagcttgcc 1200 aggactcaag ccatcctgcc aaacacagga acacatctgc agtcctagge tgcttggccg 1260 agaaactagc aggtcctgca agtataggtt tacttagccc aggaatactg gaatacttgc 1320 tacagtgtct gttacagtcc caccccacag tcatgctttt tgcacttatc gcactggaaa 1380 agtttgcaca gacaagtgaa aataaattga ctatttctga atccagtatt agtgaccggc 1440

tiggicacat iggagiccig gggctaatga tootgattat cigaaacgic aagtiggt 1498

<210> 648 <211> 1013 <212> DNA <213> Homo sapiens

<400> 648 agatteggea etaggggett ggetaaaagt aagggtgteg tgetgatgge eetgtgegea 60 etgaccogog etetgogete tetgaacetg gegeeeeega eegtegeege eeetgeeeeg 120 agtotgttcc ccgccgccca gatgatgaac aatggcctcc tccaacaqcc ctctqccttq 180 atgttgctcc cetgccgccc agttcttact tetgtgccc ttaatgccaa ctttgtgtcc 240 tggaagagtc gtaccaagta caccattaca ccagtgaaga tgaggaagtc tgggggccga 300 gaccacacag geogaateeg ggtgcatggt attggegggg gecacaagea aegttatega 360 atgattgact ttctgcgttt ccggcctgag gagaccaagt caggaccett tgaggagaag 420 gttatccaag teegetatga teeetgtagg teageagaea tagetetggt tgetggggge 480 agceggaaac getggatcat egecacagaa aacatgcagg etggagatac aatettgaac 540 totaaccaca taggoogaat ggoagttgct gctcgggaag gggatgcgca tcctcttqgq 600 getetgeetg tggggaccet catcaacaac gtggaaagtg agecaggeeg gggtgeecaa 660 tatatecgag etgeagggae gtgtggtgtg etaetgegga aggtgaatgg eacagceatt 720 atccagctgc cctctaagag gcagatgcag gtgctggaaa cgtgcqtaqc aacagtaggc 780 cgagtateca acgttgatea taacaaacgg gtcattggca aggcaggteg caaccgctgg 840 ctgggcaaga ggcctaacag tgggcggtgg caccqcaagg ggggctgggc tgqccgaaag 900 attoggocac taccocccat gaagagttac gtgaagetge ettetgette tgcccaaage 960 tgatatccct gtactctaat aaaatgcccc cccccccqt tttaaaaaaa aaa 1013

<210> 649 <211> 1504 <212> DNA <213> Homo sapiens

<213> Homo sapiens

<400> 649 ttcggcacga agcgtgtctc ggggtggacg atgttatttg aaaagttaca qqacaqattt 60 tetgtgttaa tggacatgag ccatacattg agagggetge tggetaetga aagaaatata 120 aaattttaaa atttetgaaa teatgeagtt aacatetgea caetteacta tattttaagt 180 ttttgttaat ataaaagaat aagaaaacag aaaagtatta ctgttaaaca ataatagaga 240 aatgtatact ttatttataa atttctccct ctagctgatc atacagttga ccagttcagg 300 gtgcccgctg ctggttggat gccaggcgga atgtcagggt gttctctggt gtctgttqtg 360 getgtgggat ccaeggttac tgggeggage cetqtqqtqq etqtqqtgec atqqaqqqqe 420 tgcgatette tgtggagetg gaccetgage tgactecagg gaagetggat gaggagatgg 480 tggggctgcc accccatgac gcgagtcctc aagtcacttt ccacagcctc gatgggaaga 540 cagtggtgtg tecacacttc atgggettac tgctgggtct cttactttta ttgactttgt 600 ctgttaggaa ccaactctgt gtaagaggtg aaaggcagct tgcagaaaca ctgcattcac 660 aggtgaagga gaaatcccag ctcattggca agaaaacaga ttgtagagac tgaqgcatct 720 ttaaaagatg tcagggtaca gaaaaagtct ttcaacaccc ccggctttgt agatgcctac 780 aagaaggtga atagcaccaa cgagatgctg atggagaaat ttaccaccct cgttcaagaa 840 ctgaaagaag agacateete cagactetee aggcaacaag aggagetggt agagatgeta 900 acaacgctgg aggccctggg agaggccatg agagccaccc cgtcacaagg agcttttcca 960

cacctgccat	gcagctgaga	gccaagccct	getgetetet	ccccacgag	ggctgggt	1020
cttagagcag	cactgttctt	ttcccctcca	cccaggcctc	ccgagctgcc	aggetetgtg	1080
ctcccacact	gactccatct	gaggggtcct	tgaggccagt	ggatctggag	taccccgccc	1140
ctggcctgga	gtteeteete	cttctcacgc	tgacactgca	gccagctcct	caatgggcgg	1.200
tgcccccaaa	tctaaagaat	atggaggtcc	tggagcacac	caagaaatga	gggacttttt	1260
ctttgcagaa	agtttgaatt	ctgtcttaat	gagacagaat	gccatacttg	agcacctcat	1320
cttttgctca	aattgaaatg	tcatcgaact	gtatttctca	agtcaaaggt	ctgtaaatat	1380
gatttatgta	ttaatctcct	aagtgaacaa	tttatatttt	atcctctaca	taattatcgt	1440
attaigettt	aaatatatat	ttagtttatc	aataaagaca	ttcagtactc	aatagcaaaa	1500
aaaa						1504

<210> 650 <211> 2231 <212> DNA <213> Homo sapiens <220> <221> misc_feature

<222> (1)...(2231) <223> n = a,t,c or g

<400> 650 geggeegeag acaaagggeg getegegeec gggeegeeac geteteggge tetgeetegg gaaggagact tggtctgaaa gatgccacat tcctgcagcc tctcttggtg cagtggaata 120 cagtottggg cgaggtggcg tggatgagct ggtgaaagag gatgctgccc acatccaaag getecagagg atcetgggee tgggcagetg ageteceetg catttgggaa ceteaggegt 240 aacttgggtg tagagctcat gaaaggtgct tgtgtttctc cagctttttt tcaccagtgc ottaccagac tgggctcagg ttttgggaat tctaagggtg agctgggtag gaaacaggga 360 gagggtagga aagaagcccc tggggatgcc ttcccagaat tcatttgatg gggatccctg 420 gcataactgc ttgggaacac agaaagaggc tgtgacacag ctgagctttt ggagcatttt 480 aaggagetee ageteeagea aaacaaacte ttgeatttea geeeagaaag ageetettgt aacaaagtat tocaaagggg agagtttetg catettttac tittgcagtec actatggtag 600 aaaacttgac attecataga taatgataet gggttttett tecaagatge cagetttaaa 660 agaaatatga gccattctaa gctttaagaa gggttcagga aacacaggaa ttagtagaca gccctcccaa tgcaggttaa gacgacagcc tgcgcccca actagcacag ctcagcgagc 720 780 atgaccatat gccattctcg tctccagaga gctggtggca gtgacctcac taggagaaaa 840 cacatccctc agccgtggga cttgacagaa tgaggtgcgc gagggaggcc gctagccgag 900 acttggcctt tcctgactgc ccctgtgtta cctgggcagc tccagatcac tgagcccaca 960 atggctgaga agggtgactg catcgccagt gtctatgggt atgacctcgg tgggcgcttt 1020 gttgacttcc aacecetggg etteggtgte aatggtttgg tgetgtegge egtggacage 1080 cgggcctgcc ggaaggtcgc tgtgaagaag attgccctga gcgatgcccg cagcatgaag 1140 cacqcqctcc qaqaqatcaa qatcattcqq cqcctqqacc acqacaacat cqtcaaaqtq tacgaggtgc toggtcccaa gggcactgac ctgcagggtg agetgttcaa gttcagegtg 1260 gegtacateg tecaggagta catggagace gacetggcae geetgetgga geagggeaeg 1320 ctggcagaag agcatgccaa gctgttcatg taccagctgc tccgcgggct caagtacatc 1380 cacteogeca aegtgetgea cagggacetg aageeegeca acatetteat cageaeagag 1440 gacctegtgc tcaagattgg ggattteggg ttggcaagga tegttgatca gcattactec 1500 caacaagggt tatctgtcag aagggttggt aacaaagtgg taccgttccc cacgactgct 1560 cctttccccc aataactaca Ccaaagccat cgacatgtgg gccgccggct gcatcctggc 1620 tgagatgett aeggggagaa tgetetttge tggggeecat gagetggage agatgeaact 1680 cateetggag accatecetg taateeggga ggaagacaag gaegagetge teagggtgat 1740 gccttccttt gtcagcagca cctgggaggt gaagaggcct ctgcgcaagc tgctccctga 1800 agtgaacagt gaagccatog actttetgga gaagateetg acetttaace ccatggateg 1860 cotaacaget gagatgggge tgcaacaece ctacatgage coatactegt geeetgagga 1920 egageceace teacaacace cetteegeat tgaggatgag ategacgaca tegtgetgat 1980 ggccgctaac cagagecage tgtccaactg ggacacgtgc agttccaggt accetgtgag 2040

 cotytogtog gacetgagt
 geggcetga
 coggtgceag
 aggtacageg
 2100

 cgacecgeg
 gegggttogg
 egcactgg
 tgagaacgtg
 caggtggace
 egcacagga
 2160

 ctcgcacage
 agetcegect
 egtgcaaage
 tggtcgtaat
 ggtgtcagte
 ggtateagt
 2220

 bnntetecce
 t
 2311

<210> 651 <211> 2458

<212> DNA

<213> Homo sapiens

<400> 651

atgaggacae ttgggaettg eetggegaet ttggeeggae ttttgetaae tgeggeggge 60 gagacgttct caggtggctg cctctttgat gagccgtata gcacatgtgg atatagtcaa 120 tetgaaggtg atgaetteaa ttgggageaa gtgaacacet tgaetaaace gaettetgat 180 ccatggatgc catcaggttc tttcatgctg gtgaatgcct ctgggagacc tgaggggcag 240 agageceace tgetettace ceaacttaaa gaaaatgaca cecaetgeat egatttteae 300 tattttgtgt ccagcaagag taattctcct ccggggttac tcaatgtcta cgtgaaggtc 360 aataacgggc cactggggaa tcctatctgg aatatatctg gagacccaac acgtacatgg 420 aacagggcag aactggccat tagtactttc tggcctaact tttatcaggt gatttttgaa 480 gtgataactt ctggacatca aggetatete getategatg aggtgaaggt gttaggacat 540 ccatgtacca ggactectca ettectgegg atteagaatg tggaagttaa tgetggecag 600 tttgctacct tccagtgcag tgccatcggc aggaccgtgg caggagacag gctctggtta 660 cagggcattg atgtgcgaga tgctcctctg aaggaaatca aggtgaccag ctcccgacqc 720 ttcattqctt catttaatgt tgtgaatacc accaaacqag atqctggaaa gtaccqctqc 780 atgattccgc actgaaggag gtgttggaat atcaaactat gcagagttgg gtagttaaag 840 aaccaccegt tectattgee ceaccteage tegeetetgt aggageeace tacetgtgga 900 tacageteaa egecaactee ateaatgggg atgggeecat tgtggeecga gaggtggagt 960 actgcacggc cagtgggagc tggaatgacc ggcagccagt cgattccacg agctataaaa 1020 ttggacacct tgacccagat acagaatatg agattagtgt geteetgace aggecagggg 1080 agggtggcac tggctctcct ggtccagctc tcaggacaag aacaaagtgt gctgatccca 1140 tgcgaggccc aagaaaacta gaagtagtgg aggtcaaatc tcggcaaatc actatccgct 1200 gggagccatt tggatataat gtaactcgtt gccacagtta taatctcact gtccactact 1260 gttaccaagt tggaggacaa gaacaagtgc gagaagaagt aagctgggat acagaaaatt 1320 cacaccctca acacacgate actaacctgt caccatacac caatgtcagt gtgaaactga 1380 tecteatqaa eecaqagge eggaaggaaa gecaagaact catagtqeaq acaqatqaaq 1440 accteccagg tgetgttecc actgaateca tacaaggaag tacetttgaa gagaagatat 1500 ttcttcagtg gagagaacca actcaaacat atggtqtaat cactttatat gagatcacct 1560 acaaaqcagt cagtteettt gacccaqaaa tagatttate caatcagagt ggaagagttt 1620 casagetggg asatgasace cattttetgt tttttggact gtateegggg accacatact 1680 cetttaccat cegagetage acagetaagg gttttgggce tecageaaca aaccagttea 1740 ccaccaaaat atcagcaccc tctatgccag cttatgaact tgagacacct ttgaatcaaa 1800 ctgacaatac cgtgacagte atgetgaaac ctgcccacag cagaggagca cctgtcagtg 1860 tetateaaat agttgttgag gaagaacqte eteqaaqaac taaaaagacq acagaaatet 1920 taaagtgcta cccagtgcca atteacttec agaatgctte tetgetgaac teacagtact 1980 actttgctgc agaatttcct gcagacagcc tccaagctgc gcagcctttt acaattggtg 2040 ataataagac atataatgga tactggaaca ctccccttct cccctataaa agctacagaa 2100 tttatttcca agetgetagt agagecaatg gggaaaccaa aatagaetgt gtecaagtgg 2160 ccacaaaagg agctgccact ccgaaaccag tcccaqaacc cgagaaacag acagaccata cagttaaaat tgctggagtc atcqcqqqca tcttqctqtt cqtqattata tttcttqqaq 2280 ttgtgttggt aatgaagaaa aggetttaca agcatggtge cagcatetgt tcagettetg 2340 gtgaggcctc aggaagcttc caatcatqqa qqaaqqcaaa qcacaaqcaq qcqtqtccca 2400

2458

tggcaagagc aggagcacga gagcgagcgg gagggtgtct caaactttga aacaacca

```
<210> 652
     <211> 457
     <212> DNA
     <213> Homo sapiens
     <22NS
     <221> misc feature
     <222> (1)...(457)
     <223> n = a,t,c or q
     <400> 652
aataqactqc qtaacctacq ccannqcqnq qaattcqtca qcttctqcaq ctctcccqqq
                                                                     60
ctagcatqqc aqcqcqqaaq aqttqqacqq ccctqcqqct ctqcqccaca qttqttqtac
                                                                     120
ttgatatggt cgtctgtaaa ggatttgtac aagatttaga tgaatcgttt aaagaaaatc
                                                                     180
gaaatgatga catttggctt gtacattttt atgcgccatg gtgtggccat tgtaaaaagc
                                                                     240
tggaaccaat ttggaatgaa gctggtcttg agatgaaaag cattggttct ccagttaagg
                                                                     300
ctggaaagat ggatgctact tcctattcta gcattgcttc agagtttgga gttcgaggtt
                                                                     360
atccaacaat taagctggct ctaattcggc cacttccaag tcaacaaatg tttgaacata
                                                                     420
tgcacaagag acaccgcgta tttttcqttt atqtaaq
                                                                     457
     <210> 653
     <211> 1014
     <212> DNA
     <213> Homo sapiens
     <400> 653
tttttccttt ccttttccct ttctcctttc cctctccata gtgaagctaa tgtactttgc
                                                                     60
acaqtqttaq caattatcac ccattcatca qqtattaatt catttcqatc ccaaqqqcat
                                                                     120
aggettgatg tacaataagg agttaaggac tgtgagttet etgataaggt ttggttatag
                                                                    180
tcatttctca cttctcaccc tctccaggac tacttccagc aacccagtct cctgccatgt
                                                                    240
cegaceccat cacgetgaac gtcqqqqqqa aqetetatac aaceteactq gcqacectga
                                                                    300
ccagettece tgactecatg ctaggegeca tgttcagegg qaagatgeec accaagaggg
                                                                    360
acadccadgg caactgette attgaccgtg acggcaaagt gttccgctat atcetcaact
                                                                    420
tectgeggae eteceacett gacetgeetg aggaetteea ggagatgggg etgeteegea
                                                                    480
gggaggccga ettetaccag gtgcagccce tgattgaggc cetgcaggag aaggaagtgg
                                                                    540
agetetecaa ggeegagaag aatgeeatge teaacateac actgaaccag cgtgtgcaga
                                                                    600
cggtccactt cactgtgcgc gaggcacccc agatctacag ecteteetet tecagcatgg
                                                                    660
aggiteticaa egecaacate ticageacet cetgeeteti eetcaagete etiggeteta
                                                                    720
agetetteta etgetecaat ggeaatetet cetecateae cagecacttg caggacceca
                                                                    780
accacctgac totgqactqq qtqqccaatq tqqaqqqcct qccaqaqqaq qaqtacacca
                                                                    840
agcagaacct caagaggctc tgggtggtgc ccgccaacaa gcagatcaac agcttccagg
                                                                    900
tettegtgga agaggtactg aaaategete tgagegatgg ettetgeate gattettete
                                                                    960
acccacatgo totggatttt atgaacaata agattattog attaatacgg taca
                                                                   1014
```

<210> 654 <211> 1725

<212> DNA

<213> Homo sapiens

<400>	654					
attegtgege	cgataatttg	gtggcggcgt	ccggagggtg	ctggtttgtt	ctcggtgaac	60
ggcgcgcggg	gtctctcctg	agtgcgagct	acgggacctt	cgccatgccg	gggatggtac	120
tetteggeeg	gcgctgggcc	atcgccagcg	acgacttggt	cttcccaggg	ttcttcgagc	180
tggtcgtgcg	agtgctgtgg	tggattggca	ttctgacgtt	gtatctcatg	cacagaggaa	240
agctggactg	tgctggtgga	gccttgctca	gcagttactt	gatcgtcctc	atgattetee	300
tggcagttgt	catatgtact	gtgtcagcca	tcatgtgtgt	cagcatgaga	ggaacgattt	360
gtaaccctgg	accgcggaag	tctatgtcta	agctgcttta	cateegeetg	gegetgtttt	420
ttccagagat	ggtctgggcc	tctctggggg	ctgcctgggt	ggcagatggt	gttcagtgcg	480
acaggacagt	tgtaaacggc	atcatcgcaa	ccgtcgtggt	cagttggatc	atcatcgctg	540
ccacagtggt	ttccattatc	attgtctttg	accctcttgg	ggggaaaatg	gctccatatt	600
cctctgccgg	ccccagccac	ctggatagtc	atgattcaag	ccagttactt	aatggcctca	660
agacagcagc	tacaagcgtg	tgggaaacca	gaatcaagct	cttgtgctgt	tgcattggga	720
aagacgacca	tactcgggtt	gctttttcga	gtacggcaga	gcttttctca	acctactttt	780
cagacacaga	tetggtgeee	agcgacattg	cggcgggcct	cgccctgctt	catcagcaac	840
aggacaatat	caggaacaac	caagagcctg	cccaggtggt	ctgccatgcc	ccagggagct	900
cccaggaagc	tgatctggat	gcagaattaa	aaaactgcca	tcattacatg	cagtttgcag	960
cagcggccta	tgggtggccc	ctctacatct	acagaaaccc	cctcacgggg	ctgtgcagga	1020
ttggtggtga	ctgctgcaga	agcaagaacc	cacagactat	gacttggtcg	gaggcgatca	1080
gcttcaactg	tcacttcggc	tcccatcctg	cacacccaca	gggctgcagt	acagggactt	1140
catccacgtc	agcttccatg	gacaaggttt.	acggagctgc	cgtttttagt	ggctctggat	1200
cacaggaaag	agtctgttgt	ggtcgctgtg	agggggacca	tgtctctgca	ggatgtcctt	1260
a c ggacctgt	cagcggagag	tgaggtgcta	gacgtggagt	gtgaggtgca	ggaccgcctg	1320
gcacacaagg	gtatttctca	agctgccaga	tacgtttacc	aacgactcat	caacgacggg	1380
attttgagcc	aagccttcag	cattgctcct	gagtaccggc	tggtcatagt	gggccacagc	1440
	gggcggccgc					1500
aggtgctacg	ccttctcccc	accccggggg	ctgtggagca	aagctctgca	ggaatattct	1560
cagagettea	tcgtgtcact	cgtcctgggg	aaggatgtga	ttcccaggct	cagtgtgacc	1620
aacttggaag	atcttgaaga	gaagaatctt	gcgagtggtc	gcgcactgca	ataaacccaa	1680
qtacaaqatc	ttqctqcacq	gtttgtggta	cqaactqttt	qqaqq		1725

<210> 655 <211> 748 <212> DNA <213> Homo sapiens

<400> 655

tttegtgegg egaetgeage agegaagggg aatgggggeg geggtggeag ggeeggggee 60 ggggacgcca gcggcacgcg gaagaagaag ggcccggggc ccctggccac ggcgtacctg 120 gtcatctaca atgtggtgat gacageoggg tggetggtta tageggttgg tetggteega 180 gcatacetgg etaagggtag etaccatage etttattatt caattgaaaa geetttgaaa 240 ttctttcaaa ctggagcctt attggagatt ttacattgtg ctataggaat tgttccatct 300 tetgttgtcc tgacttettt ccaggtgatg teaagagttt ttctaatatg ggcagtaaca 360 catagogtca aagaggtaca gagtgaagac agtgtccttg tttgttattg catggacgat 420 cacggaaatc atcogttact cottttatac atteagtcta ttaaaccatc tgccttacct 480 540 catcaaaagg gccaggtaca cacttttcat tqtqctqtac ccaatgggag tqtcagqaga actgeteaca atatatgeag etetgecett tgteaqaeaa getggeetat attecateag 600 tttacccaac tctacaaaaa aaatttttt aattaqccaq gtatggtggc atatgcttgc 660 agtotcagot gacgotaagg oggoagaaat gootgotgta ottaagootg ggocatagag 720 748 aaggacettg tetetaaata aataaata

<210> <211> <212> <213>	977	ns				
<400>	656 gacagacaga	caaaaaaaat	anttttaata	anathananta	taatatataa	61
	aatgttgact					120
	ttcatgggaa					180
	cagctgtatc					240
	tatgttctgc					300
	cgtgtctgct					360
	caacaccagc					420
cagagtgccc	tgcttgttat	gaatctaatg	gaacttcctg	tcgtgggaag	ccctggaaat	480
gctatgaaga	agaacagtgt	gtctttctag	ttgcagaact	taagaatgac	attgagtcta	540
	gctgaaaggc					600
	gactcttgga					660
	cacgtctgca					720
acctcttggc	ccttgccagc	ctccttcttc	ggggactgct	gccctgaggt	cctggggctg	780
cactttgccc	agcaccccat	ttctgcttct	ctgaggtcca	gtagcactcc	ctgcggtgct	840
gacaccctct	ttecetgete	tgccccgttt	aactgcccag	taagtgggag	tcacaggtct	900
	ccgacagetg	ccttgttctt	cattattaaa	gcactggttc	attcactgcc	960
caaaaaaaaa	aaacatt					971

<210> 657 <211> 746 <212> DNA <213> Homo sapiens

<400> 657

tttcgtggcg gaacggagga ggaggcggtg gtgtcccggc tgcggggtag gagtccgcgg cagceteegg gtaagecaag egeegegeag tgetgagtte eegeaegeeg cagagecatg 120 gagateggea eegagateag eegeaagate eggagtgeea ttaaggggaa attacaagaa 180 ttaggagett atgttgatga agaactteet gattacatta tggtgatggt ggccaacaag 240 aaaagtcagg accaaatgac agaggatctg tecetgttte tagggaacaa cacaattcga 300 ttcaccgtat ggcttcatgg tgtattagat aaacttcgct ctgttacaac tgaaccctct 360 agtotgaagt ottotgatac caacatottt gatagtaacg tgccttcaaa caagagcaat 420 ttcagtcggg gagatgagag gaggcatgaa gctgcagtgc caccacttgg ccattcctag 480 cgcgagacct gaaaaaagag attccagagt ttctacaagt tcgcaggagt caaaaaccac 540 aaatgtcaga cagacttacg atgatggagc tgcaacccga ctaatgtcaa cagtgaacct 600 ttgagggage cagcaccete tgaagatgtg attgatatta agccagaacc agatgatete 660 attgacgaag acctcaactt tgtgcaggag aaacccttat ctcagaaaaa acctacagtg 720 acacttacat atggttette tegece 746

<210> <211> <212> <213>	559	ເສ				
tttecagece aggtgcagec ggggctaccc tetecggece ectggaaggg tgggettgec gggettecag	gtgggctggc ctggggcagc cgaagcagcc tgggggcagc agcctgagc aaggtcacag aacccggaga atgacgctgc	ctgattaacc agaccagccc ctcacctagg tggagctggt ccaccacctt ataccgtctg cactggctga	agetteteca etgageetee getgeagatg geeetacaca etceetggag getegtggtg eatteeggee	gggccaaget egggtgetgg etecteetgg ecacagataa eageegeget geetteagea teeccacage	gttgggggtg cagctgtcat cgttgaactg cagcttggga gtgtcttcga atgcctccag tgctgaccga	50 120 1800 240 300 360 420 480 540 559
<210> <211> <212> <213>	538	າຣ				
aagggccag acaggacaga cactgacctg tgagagaagc aaggcagaga gccctccac tcttaacaat	659 cttgggggac gagaaaggag gacaactgcc ggggagggga	gaagggaagg cgggaggatg gtaaagagaa gtgcgtgtag agaccagact accccataac agacggagtc	agctggaggg ggagaacaga gtgaaggggg gagggcggga cctcatccgg tgaaaacaag ttgctgtgtt	gcgggagaac aagagggagg attggaaggg gagccaatga taacactgtg taggaacctg gcccaggctg	aggagacaga aaacgccgag aactggagaa caagacagaa tcaggtcatt gataaaatag gagtgcagtg	60 120 180 240 300 360 420 480 538
<210>	660					

4400> 660
acqatttogt cedgecocgg egeccagec cetggecaag ectetgetgt cattititet 60
ccetectete agtetgcage tgegggacgg geegggetee teagtitetg etgtgttgtg 120
accecagag eggetcagac accagggaag gegegtptgt eccetgatet geetgetetece 120
tgagecocga eggetetga gittetgage etgtggeetg eacagggaag tteettetate 240

<211> 735 <212> DNA <213> Homo sapiens

actgcattta	tgcctctgtg	gatgtgaagg	ctatttctag	aaatctcttc	ctttgcagaa	300
acaccegaaa	ccctcctgcc	aggaagacca	gggcctggga	agagggtege	teteeggeea	360
tteteeeete	accetectea	ccttcctcac	atcctgtgcc	ctgggggacc	agcagctgct	420
tccacccaga	acaagcggga	gcctgtgtca	ggaaagcatg	tcagagcaga	gctgccagat	480
gtccgaactg	cggctcctcc	tcctgggaaa	atgccgctcg	ggaaaaagtg	ccacaggaaa	540
tgccattctg	ggcaaacatg	tgttcaagtc	caagttcagt	gatcagacag	tgatcaaaat	600
gtgccagaga	gagagttggg	tcctgagaga	aaggaaggtt	gtggtaattg	acacccctga	660
ccttttctcc	tcaatagctt	gtgctgaaga	caagcaacgc	aacatccaac	acttgttgga	720
getetetget	cccag					735

<210> 661 <211> 978 <212> DNA

<213> Homo sapiens

<400> 661 tttegtggag acgaetgtga gegtgeaaag egeagagtee tetgatgeee tgagetggte 60 caggetgeec agggeectgg ceteegtagg ceetgaggag geecgaagtg gggeeceegt 120 gggcgggggg cgttggcagc tctccgacag agtggaggga gggtccccaa cgctgggctt 180 gettggggge ageceeteag cacageeggg gacegggaat gtggaggegg gaatteette 240 tggcagaatg ctggagcctt tgccctgttg ggacgctgcg aaagatctga aagaacctca 300 gtgccctcct ggggacaggg tgggtgtgca gcctgggaac tccagggttt ggcagggcac 360 catggagaaa gccggtttgg cttggacgcg tggcacaggg gtgcaatcag aggggacttq 420 ggaaagccag cggcaggaca gtgatgccct cccaagtccg gagctgctac cccaaqatca 480 ggacaagcct ttcctgagga aggcctgcag ccccagcaac atacctgctg tcatcattac 540 agacatgggc acccaggagg atggggcctt ggaggagacg cagggaagcc ctcggggcaa 600 cotgoccotg aggaaactgt cotottoctc ggcotcotcc acgggettet cotcatcota 660 cgaagactca gaggaggaca tctccagtga ccctgagcgc accctggacc ccaactcagc 720 cttcctgcat accctggacc agcagaaacc tagagtggtg gagtctcgct ctgtcaccca 780 ggctggagtg cagtggcatg atateggctc actgcaacct ctgcctcccg gattcaagca 840 attetecege eteageette egaatagetg ggaetaeagg egeatgeeae catgeeegga 900 taatttttgg atttttagta gagaggggat ttcaccatgt tggccaggat ggcctctatc 960

978

480

<210> 662 <211> 1118 <212> DNA <213> Homo sapiens

tettgatett gtgatacg

catgaactcc eggeettaag tgacccacct geeteggeet eccaaagtge tgggactata 60 ggtgtgggcc actgcgcccg gccagtgtat tttaaaatta taaagccgat atattacaaa 120 gtaaaatgca ggggaaaaaa agtcacaaga agtataaaga ttggatgctt cttgtgcttc 180 tttttgtaaa atacagatga tootcaagaa gtaacttgag cagattttot actggottto 240 aaattgataa ccctacaccc cctataaatt tttacattcc ttaacagagc taaccatagg 300 aacttccaaa taatttctca gtggaaatga gtcttcaaaa tcacacatgg ctcataagag 360 ttttgetttt ttaatgeett eteaaaggae eeagaetget agatttteat aataaetaet 420 ttaaccagat agacttacta tagggtggta gttccccact aaaagatact tttctcttgc

ttagtagtca	ccttcctgtg	ttctagagct	tccctatgct	tttaaaatat	gcattattac	540
aacagttctc	ctaaaaacaa	aacccccata	agagetgetg	cactcgggga	gccctgaatg	600
aattttaaag	cagcgcctga	gtcctgcatt	ctttcttcat	tgtccttttt	gcttaatttg	660
cctgtggtgt	accatcaacc	ttacaatgga	gacagagaga	aagtactccc	cctaacctat	720
ttaagaaaca	tttgcaatat	actgtttttt	ttttttacaa	gtctttaatt	aaaaaactca	780
acaaaaatat	ataattgagc	attttacata	atgcatacat	tcttaatatc	tgcaggtaag	840
ataaacaaca	gaaggcaaaa	gcagatatgc	tgtattgctt	ctttggcaac	tcaccaatat	900
catcccctqc	agaaacagag	tttttttt	tttttttta	aatccatggt	cttaaaataa	960
ttqtccctta	qtataaacaa	aatatttagc	aataatacag	tagacggatt	cttcaaattc	1020
acaacaattt	ataatacttt	ataccacaag	ggtaaactag	taagctgctt	tctaaaatta	1080
aggcagcagc	agtgtttaga	gggggagtaa	aaaaaaaa			1118

<210> 663 <211> 556

<212> DNA <213> Homo sapiens

<400> 663 gaaatgocta ttttcatttc tgatcttact tacttgtgtt ttttctcttt ttaattattc ttactagaag tttatcaatt ttattactct ttccaaagaa caagcttttg gctttgctaa 120 ttttctctat tatttacttg ttttaaaaaa tgtattggtt tctgctctta tctttattat 180 gtttttcttc tacttagtat taatttagtt tgttctttc ctagcctctt aaggtagaaa 240 cttagataat tgattttaag ccttccttta ctatatgggc acttgaaaag ctatacattt 300 ccctctgaac actaccttca tttgctacaa acatttgcta cattcaacaa atatttgaat 360 gtgtgtgttt taattttcat tcatcacaaa cccgtggtcc cagctattca ggggactaat 420 gtgggaggat cacttgagec caggaggttg aggetgeage aagceatgat tgtgccacta 480 cattttggcc tgggcaacag agtgagaccc tgtctcaaaa aacaacaaca acaacaacaa 540 556 caacaacaaa aaaaaa

<210> 664 <211> 373 <212> DNA <213> Homo sapiens

<400> 664 agaatqqaqa ccaaacctgt gataacctgt ctcaaaaccc tcctcatcat ctactccttc gtettetgga teaetggggt gateetgetg getgeeggag tetggggeaa acttactetg ggetectata tetecettat tgecgagaac tecacatatg etecetatgt geteategta actggcacca ctatcgttgc ctatcctcta gtttgattct tcttctccta ttcttctggg ttetettaca ttetagecgt cegecteatt getggaattg etetegteta caactacate

360 cetegatett categogtge gttagtecgt etegtegtet tgettegttt cetectetet cgtcatcctt ccc 373

120

180

240

300

<210> 665

WO 01/53455					PCT/US00/	35017
<211> <212> <213>		ıs				
<222>	misc_featur (1)(411) n = a,t,c o)				
agcacgctga ctgaattatc cccgtaggtc cacagcagca gcgatgatgt	acatccaggc gcgagatgat caatgaggag atcttggatg gatggctcca actgtctctt	gacatggcag aggaatette ggcgcatgae gactgcagag ttggaaaage	cctgcatgaa tctcagatgc gtatcgaaca agatttttgc tcttgatccc	gactgtaact tcataccaat aaagaccgaa gacggagcta	aaactggccg gatcaaggag gctgtatgag ggtgctgaca agagatatct catgcataga n	60 120 180 240 300 360 411
<210> <211> <212> <213>	333	ns .				
ggctgtggag gggagaggac acattgtgta cttacggcag	ccgctgggga agcccgtccg gagattagcc aaggaaggac ggatcattgg	actgcgctga cacaaactga atgataaggc	caatggacag ataagtcagt agatccttcc cttaggtaag	caaattatgg atcaaagaag cagattgaac	ggcagatgat atgaacctat ttgctgtcac ttttaagagt gctctgatgc	60 120 180 240 300 333
<210> <211> <212> <213>	1991	as				
ggtgagagcg cacattgcag aacattaaca agcctagaat ggcatcaggg	ggaattegge ggagetetea cetttggggg aaceggattg geateagtge ttetggagtg	ctettegtet acatecteag tgagggtgaa cettgtggeg gttgtttgag	ccaccacacg tgcctggtct actcccattc aatggggctc tgacacagca	ttggagtget gtacgegeag ggetgattea acaaggeage acgtegataa caaggeettg ggaagetgte	acgccagcgc agcaggagcc tegetetggg ccccaagaaa atttcatcat	60 120 180 240 300 360 420

agtacttctc	ccgtttgttt	atcaacctgc	agctaacagg	atgtctgctt	ttttacaggt	48
ttatttcaca	gagcagtgta	cattcttgtc	ttccagggga	acttcaacat	ggagttactt	54
ttgatccctc	agttttaatt	cagtgtctaa	aggtttacaa	gttcaactta	ctctatttta	600
ttcagctctt	tcacttactc	tgccatcact	tcctacttga	atctgagttt	tagctactgt	660
agaggtctca	gacctttcct	ttttagtact	attagccagg	taaaactttg	gttcttgtga	720
gtggtaggga	tgagttttta	ggacagtatt	caaagccttt	ttaaaggaac	caactactca	780
aatgctctac	aatgccaaaa	atacaatact	cctgcaggtt	ttcccaagca	aggccaaaac	840
aatcaaaatc	tgacagaaaa	acacagctgt	tcagctctgg	aatctgatga	taggctactt	900
tttaatgtca	ggacatcctt	ctaaacttcc	acttacagtg	tcacatgtaa	gcatgaaggc	960
tggctcgttg	gtgagccatt	gctttgtttt	taggaagaca	gttatgaatg	ccatggacaa	1020
tctcagtaca	tgttgtttgt	tatgatttta	ttcacgctaa	aggaatgggt	attaaaatta	1080
	atatagaatt					1140
gactaacata	aaacatgatt	ttgagaagtt	aaataggaag	atgccttttt	tagaagttta	1200
	tttatctccc					1260
ttacagagct	agattgatta	actacttctt	taatgaagat	ttgctatgaa	tttgtttact	1320
ctttcatacc	accttcagat	agctagtcag	ttcagcagga	gcagagacca	ggttagcacg	1380
	gtaattcagt					1440
	cattgcacaa					1500
tccagaattg	tcatctgaac	catttctata	acaatggcat	cttaaatggg	ggtcatcaga	1560
atgtatttcc	taatcatatt	agtgtgggaa	caaatcgaaa	gagatgcttg	gaagactcag	1620
	agtaaagaaa					1680
	tttcctttct					1740
tgagaccttc	acttcaggtg	gtaatgcgcc	tggtggattg	tgcggtgacg	gtggagattt	1800
	gccactgcga					1860
	gtaaatgtct					1920
ttagattttt	taatttgttg	tatctgtttg	aaatatatct	attaaaaaaa	atctgccact	1980
gaaaaaaaaa	a					1991

<210> 668 <211> 1156

<212> DNA

<213> Homo sapiens

<400> 668 cagttttcaa aggttaagta agcactgaag tgtgaataca ttaagagaaa gatatgtaat 60 taaaaatcca ctaccaaaaa taaatatgag atatatgtgt atgactaata tgccagattt 120 acttttqqag acttgtctga gtattatgaa tttttgtaag aaattcctaa gaatctttct 180 aatottagca gttttcatta atgaaatggt ttttgaagga tttagcagga aatacatata 240 actitigaaa citatgitta tagcigaact tggigactat gatcitigcig agcatagicc 300 tgaacttgtc tcagagttca gattcgtgcc tattcagact gaagagatgg aactggctat 360 ttttgagaaa tggaaggaat acagaggtca aacaccagca caggctgaaa ccaattatct 420 gaataaagcc aaatggctag aaatgtatgg ggttgatatg catgtggtca aggctagaga 480 tgggaatgac tatagtttgg gactaacacc aacaggagtc cttgtttttg aaggagatac 540 caaaattggc ttatttttt ggccgaagat aaccagattg gattttaaga agaataaatt 600 aaccttggtg gttgtagaag atgatgatca gggcaaagaa caggaacata catttgtctt 660 tagactggat catccaaaag catgcaaaca tttatggaaa tgtgctgtgg agcatcatgc 720 tttetteege ettegaggee eegteeaaaa gagtteteat egateaggat ttattegaet 780 aggatcacga tttagatata gtgggaaaac agagtatcag accacaaaaa ccaataaagc 840 aagaagatca acateetttg aaagaaggee cagcaaacga tattetagae gaactetaca 900 aatgaaagca tgtgctacaa aacctgaaga acttagtgtt cacaataatg tttcgaccca 960 aagtaatggc teccaacagg ettgggggat gagatetget etgeetgtga gteetteeat 1020 tteetetget cetgtgccag tggagataga gaatetteca cagagteetg gaacagacca 1080 gcatgacagg aaatggctct ctgctgccag cgactgctgt caacgtggtg gaaaccagtg 1140 gaacacaaqq gccttg 1156

<210> 669 <211> 539 <212> DNA <213> Homo sapiens

<400> 669

aaqaatccaq atqqtqqcct tttqqqqqca ttaqqatcct tcttcttqcc tcccttaqct 60 120 ggtccataat ccttcatttc ccgatcatag cacacttcat ccgcctttgc catttcacca aatttaaatt tetetttaet ggacattgte ttecacetee cagageattt ettegaaaat 180 tetgeaaaat tgacagggac ttetgggttt ttettettat gttettetet geattggaac 240 aggaattaaa agaaattaaa gaggccgggc gcagtggctc acqcctgtaa tcccagtaat 300 ttgggaggcc aaggcgggcg gatcacctga ggtccagagt tcaagaccag cctgaccaac 360 atggagaaac cctgtctcta ctaaaaatac aaaaaattag ccgggtgtgg tggtgcatgc 420 ctgtagtccc agctactccg gaggctgagg caggagaatg gcttgagcct gggaggcgga 480 qqttqctqtq aqccqaqatc qcacctttqc actctaqcct qqqcaacaaq aqcqaqact 539

<210> 670 <211> 682 <212> DNA <213> Homo sapiens

<400> 670

ctgggggtcc tggctgaact ggtctggtgt taagggggcc ccctgacccc cttgaagggg 60 gggctgggct gggtgagggg gggtggccga cccccagcca ggttcccagg caggatgagc 120 180 tgggcagggc gccacatgga agctggagga gcaacgggag cgctgggcgt ggggagcaaa 240 ttgcccaqtq ccttctqttt cccaqqcaqc tctqtqqcca tqqatatqtt ccaqaaqqta 300 qaqaaqatcq qaqaqqqcac ctatqqqqtq qtqtacaaqq ccaaqaacaq qqaqacaqqq 360 carctrated coctdaagaa gatcagactg gatttgtgag tgctgggacg gcccctgagt 420 tacccacct gggcatcac aacctgggcg ctccctgatc cottccctct ttcctggagt 480 ccacqtttaa ctcctctqqq tqctqcccaq caqcccttac ctqtcctctc cccaqttcac 540 tgccttctga ccagcctttg ccggggccct gactgtggag tttggtggat gacgtgccaa 600 ggagcacagg tetecattge eggggeett gteattetgt ggggttaagg agaagcegat 660 cccctggct ggaagtgccc tt 682

<210> 671 <211> 536 <212> DNA <213> Homo sapiens

gcctgtgtgt	ctctgtgctt	tgctccttct	cctacctcca	aaatggctgg	actgcctccg	60
atccagttca	tggctactgg	ttcaggggca	ggggaccatg	taagccggaa	cattccagtg	120
gccacaaaca	acccagttcg	agcagtgcag	gaggagactc	gggaccgatt	ccacctcctt	180
ggggacccac	agaacaagga	ttgtaccctg	agcatcagag	acaccagaga	gagtgatgca	240
gggacatacg	tcttttgtgt	agagagga	aatatgaaat	ggaattataa	atatgaccag	300
ctctctgtga	atgtgacagc	gtcccaggac	ctactgtcaa	gatacaggct	ggaggtgcca	360
gagtcggtga	ctgtgcagga	gggtctgtgt	gtctctgtgc	cctgcagtgt	cctttacccc	420
cattacaact	ggactgcctc	tagccctgtt	tatggatcct	gggtcaagga	aggggccgat	480
ataccatggg	atattccagt	ggccacaaac	accccaagtg	gaaaagtgca	agagga	536

<210> 672 <211> 1038

<212> DNA <213> Homo sapiens

<400> 672

tttcgtccct	ggagctggcg	aggtgtccgg	ttgcggagcc	ggcggcgtct	ctggaaatgc	60
atcctgcatc	cccgcatgga	taacagetge	agctatgtca	gaattgcaca	aagagggag	120
agtgtcattg	tgtgcctttt	gacacataca	ttaagaccaa	aaaggaaaaa	aagcgtctat	180
ctgtgctgcc	accgaccaga	ctcatggagg	ccagattttc	tccaattaac	cagatettge	240
cctggtgcag	acaagactta	gccatcagca	tcagcaaagc	catcaacacc	caggaggccc	300
ccgtgaagga	gaagcacgcc	cggcgcatca	ttctgggcac	acaccacgag	aagggggctt	360
teacettetg	gtcctatgcc	attgggctgc	cgctgcccag	cagctccatt	ctcagctgga	420
agttctgcca	cgtcctccac	aaggtccttc	gagacgggca	ccccaatgtg	ctgcatgact	480
gccagcggta	ccgcagcaac	atccgggaga	ttggagacct	gtggggacat	ttgcatgacc	540
gctacggaca	gctggtgaat	gtctacacca	agctgctgct	gaccaagatc	tecttecace	600
tcaagcatcc	ccagtttccc	gegggeetgg	aggtgacaga	tgaggtactg	gagaaggcag	660
ctgggaccga	tgtcaacaac	atgtgagtca	ctctgcatgg	ctacatggcc	agttcccctc	720
ggcttcccca	ttccttccta	ccgcgtctca	cgcccaggcg	tccgcatggg	gcagtggggt	780
tgaatgagtc	cgtggctttg	ttggttgatg	ctcacgctcc	cagggacaga	gggtgaagtt	840
aaaagggtgg	ggtgtacttg	aaggactgtc	gtcctggcag	aggcacgctg	tctcaccaga	900
gccatggtgt	cggcggtgcc	cccgtcccca	ctggaggggg	cgtctcaaga	cgagtgggtg	960
ggtccaccca	ccctttttca	tttcttcccc	cacttctctt	gcgtagcttc	cageteactg	1020
tggagatgtt	tgattacc					1038

<210> 673 <211> 676 <212> DNA <213> Homo sapiens

<400> 673

 Ettogtocog
 gegstocoat
 tgttttocte
 ogogateg
 ogotgatet
 tgsaccaag
 60

 getctcocog
 aeggoctog
 paaccaaat
 teaagcacca
 teaagteg
 ogotgtgg
 ogotgggg
 180

 cocogogat
 teactocog
 teactogge
 agotgetgge
 cgetggcgc
 180

 aagcaccaa
 agagatcacc
 aaccaagge
 ogotttaggtt
 caccatgggttc
 acccotggg

 aagcaccaa
 agagatcacc
 aaccaagge
 ogotttaggt
 acccotggg
 acc

 gectsggtg
 cecogaacag
 gatgecogt
 gecgectte
 ceagaacoc
 cetcaatct

 determine
 tetcaattc
 cataatcag
 gecgectte
 ceagaacoc
 cetcactc
 420

ttgatctctg	accttcaagg	tacttcccca	ttatcctggc	ttccgagcct	ggaggatgat	480
getgtggetg	cataacttgg	gctggacttt	cagagattcc	tgaccttgaa	ccggaccttg	540
ctagtggctg	cccgggatca	cgttttctcc	ttcgatcttc	aagccgaaga	agaaggggag	600
gggctggtgc	ccaacaagta	tctaacatgg	agaagccaag	atgtggagaa	ctgtgctgta	660
cggtgaaagc	tgacgg					676

<210> 674 <211> 418

<212> DNA

<213> Homo sapiens

<400> 674 674 675 679 699 699 690 69

<210> 675 <211> 1423

<212> DNA

<213> Homo sapiens

<400> 675

tgctgttcaa caaaaaacat atcaggggac aaagcatgta acttgatgat cttcgacact 60 cqaaaaacaq ctaqacaacc caactqctac ctatttttct qtcccaacqa qqaaqcctqt 120 ccattqaaac caqcaaaaqq acttatqaqt tacaqqataa ttacaqattt tccatctttq 180 accagaaatt tgccaagcca agagttaccc caggaagatt ctctcttaca tggccaattt 240 tcacaagcag tcactccct agcccatcat cacacagatt attcaaagcc caccgatatc 300 tcatggagag acacactttc tcagaagttt ggatcctcag atcacttgga gaaactattt 360 aagatggatg aagcaagtgc ccaqctcctt gcttataagg aaaaaggcca ttctcagagt 420 tcacaatttt cctctgatca agaaataget catctgetge ctgaaaatgt gagtgegete 480 ccagctacgg tggcagttgc ttctccacat accacctcgg ctactccaaa gcccgccacc 540 cttcttaccc accaatgctt cagtgacacc ttctgggact tcccagccac agctggccca 600 ccacagetee acctgtaace actgtcactt ctcageetee cacgaecete atttctacag 660 tttttacacg ggctgcggct acactccaag caatggctac aacagcagtt ctgactacca 720 cettteagge acetaeggae teaaaaggea gettaqaaac catacegttt acagaaatet 780 ccaacctaac tttgaacaca gggaatgtgt ataaccctac tgcactttct atgtcaaatg 840 tggagtette cactatgaat aaaactgett eetgggaagg tagggaggee agteeaggea 900 gttcctccca gggcagtgtt ccagaaaatc agtacggcct tccatttgaa aaatggcttc 960 ttategggte cetgetettt ggtgteetgt teetggtgat aggeetegte eteetgggta 1020 gaatcetete ggaatcaete egeaggaaac gttaetcaag actggattat ttgatcaatg 1080 ggatetatgt ggacatetaa ggatggaact eggtgtetet taatteattt agtaaccaga 1140 agcccaaatg caatgagttt ctgctqactt qctagtctta ggaggttgta ttttgaagac 1200 aggaaaatge cecettetge ttteettttt tttttttqaa acagagtett gttttqttge 1260 ccaggetqga gggcagaacc acaatttqqq ttttaaccqa accetecgtt tettqqgtta 1320

WO 01/53455					PCT/US00	0/35017
			atctggaatt ggggtttcac		gecaceacec	1380 1423
<210> <211> <212> <213>	621	ns				
gtgcagcggt tgcctcagcc tttgctggaa gaattagtaa caccactag gatgatattt acccatgcag ttaggaagag	ccaggtattt gtgatctegg tcctgagtag gtggagtcat gctgtgtggg tgaagtggaa accctattga aaagctttgt tggaaaaaag gaacagcatt	tttactgcaa ctgggattac gagactacaag ctggactact cttgttaacc ttttcactgg cctcacaagt tgtagaagct agttacagtt	agtgaaacaa	ctgagttcca atcaaggggc taaaagaacc tgtattcatg ctcaaatagt gtttgggtgt aatttcatct cagtacttgc	gcgattetee atettaaatt aaageateaa tagtgatgat aaageateet aaagaaacaa gatttecaag aggaagatgg	600 1200 1800 2400 3000 4200 4800 5400 6000
<210> <211> <212> <213>	1258	ns				
<400> cccgggtcga tcggtggcga actcgcgga aattcatcct accagctgct ataaagacct cacaatttac tcacaattttc cacagcagct ggactctgtc	cgatttegtg ggeggetgee geagtteege gegecacetg etcectetee tttagacaag taccagaagt atcatcaget etcttaagae tagattgget	gcagtggagg tcctactcag cccgactacc atggtctggg gtgatggaaa gaattaatga acaggattag tcctggtatt	agetggttte agagegagaa gegaecegee ecaaecatet tggeegatgg aaaageatea aaaggagget accaaeataa teteatttte	ggggttgegg geaatggaag egaeggeagt etteetagge gattgaagtg aagetaagee gggatgaatg agaggeaggt ecaggagtta	caggeggeeg geeegeatgg ggeegeetgg tgeagttaca gaagaeetge agaagattta tgacatagae ggaatgagaa teaetgtaaa	60 120 180 240 300 360 420 480 540 600

tgtaaaagcc ctcttttctg ttttcaggtt ttttttttc ttatcgacaa ggtctcactc 720 tgtcgcccag gcagaagcac aaaggtgcag tattggctca ttgcagcctc gaactcctgg 780 geteatattt teagggtttt ttgttttttg ttttgttttt ttgagacaga gtettgetet 840 gttgcccagg cagtagtgca gtggcgcgat atattttcag tttttaaacg tcagaatttt 900 tgtttaaaat geetttttgg getgggeaca gtggettatg eecataataa teecageact 960 ttgggaggcc gaggtgagca gatcacctga ggttaggagt ttgagaccag cctggccaac 1020 acgatgaaac cccgtctcta ctaaaaatac aaacaaaatt agctgggcat ggtggcggac 1080 atotgtaato coagotacto aggaggotga agcagaagaa ctgottgaac ctgggaggtg 1140 gaggttgcag tgagccaaga tcgcaccatt gcactccatc ctgggcgaca aaaatgaaac 1200 accgtctcaa aaaaaataaa aataataaaa taaaatgcct ttttgttgtt gctcgtgc 1258

```
<210> 678
     <211> 1289
     <212> DNA
     <213> Homo sapiens
     <220> .
     <221> misc feature
     <222> (1)...(1289)
     <223> n = a,t,c or q
     <400> 678
egecaceggt atgeaceatt accateceeg eggeteagte gageattegt ecaegggeeg
                                                                       60
gagggcgggg cgcccgggtc cggagggagc cacgcccnac cacaacaaac gcgtctgcgc
                                                                       120
atgcccgggc gctgggttca ggggctttcc gccgctctgg gttcacagct ggacgtcggg
                                                                       180
agtgctagtt tggagtacgc catttgagag taggcgtgag aagttgctct gtgtgctgag
                                                                       240
cgttctaaag gaaggcgtcc gttggccttc gtacccgtct tgagtgaggt gacgagtgtt
                                                                       300
ttctagtact ggggtcggcc gcgcagccct ctcaggggtg ggtggcagga agagtgccgg
gtcccgcgtg gtgcaaaaagg tgggttcagg tttgcggcca cacagcgcta ctcaggactt
                                                                      360
                                                                      420
tttaqtcttg tttattttct cogtgoctgt tocogcoccc cgcagctcca cototgggag
                                                                      480
agggggggt tcagctccag gaggcgggga cttcccggct tggcgtggct ggggtgtccc
                                                                      540
gtggacccca gtctcggcgc ggtgacccac ttatgggact tggcctttct ttgttgtttg
                                                                      600
tttaaggcag ggtttctcag cctgggcact actgaggttt tgggccggct aattetgtet
                                                                      660
gggttgggga gggtgctgtc ccgtgcttcg caggttgtgt agctgcatcc cccgcctcta
                                                                      720
cccagtggat gcaagtagca gccccagtga accaaaaatg cccccagact ttgccaaata
                                                                      780
toccotocog gggaagatog cotogottga gaaccactgt tggaggagag cotgggtttt
                                                                       840
cgggaggtaa ccgtttacaa aggggagaac ggtaagaagc cggaaqcaac qatgacttag
                                                                      900
ctacgtgaaa gacttgcggc cgggctcgcc cctcttctag aagccgtcag tttgggtctc
                                                                      960
gcgtctggaa tcaccgtcaa ggagtcagat ccagccccgg agagggagca gggtcgaggt
                                                                    1020
ctccttgcag aaggcgccac cgcaggaagc acaggcgcaa cgtgcagtct ccctagcgga
                                                                    1080
ggcgctcgcg atcctgcagc cgccggtccg ggaggtgctc ggtagccctc cttggtgcct ,1140
gtccggtagc tggtcactct cgggggaagg tcgtgtgcag aagggcacat gcgatcacac
                                                                      1200
agagacggcg ttgctgcggc tttgacccga tggtgcaccc gaaagaacac agagggtgaa 1260
gggagagatc caggaagtgg tcgcggagc
                                                                      1289
     <210> 679
     <211> 539
     <212> DNA
     <213> Homo sapiens
     <400> 679
agtotegote tigitigocca ggotagagig caaaggigeg ateteggete acagcaacet
                                                                       60
cegectecca ggetcaagec attetectge etcagectee ggagtagetg ggactacagg
                                                                      120
catgcaccac cacacccggc taattttttg tatttttagt agagacaggg tttctccatg
                                                                      180
ttggtcaggc tggtcttgaa ctctggacct caqqtqatcc qcccqccttq qcctcccaaa
                                                                      240
```

300

360

420

ttactgggat tacaggcgtg agccactgcg cccggcctct ttaatttctt ttaattcctg

ttccaatqca gagaagaaca taagaagaaa aacccaqaag tccctgtcaa ttttgcagaa

ttttccaaga aatgctctgg gaggtggaag acaatgtcca gtaaagagaa atttaaattt

WO 01/53455					PCT/US00	/35017
ggtgaaatgg gctaagggag	caaaggegga geaagaagaa	tgaagtgtge ggateetaat	tatgateggg gececcaaaa	aaatgaagga ggccaccatc	ttatggacca tggattctt	480 539
<210> <211> <212> <213>	349	ns				
attttaaagt tttggtattc gaaatttgat ttattaataa	gttaaatttt gtttataata tccagggaca tacatactgt ccagaatata	atcacttcaa gtggccttag tagagaccac gttctgtgat	agggtacttt aatatttagg agctattgag tggattagca atattgtaaa ttaaaccaaa	taattaactg aatttgatgc gaccctggta tagatgtatt	taaattatgt aaaagaaggg agaagtgaga	60 120 180 240 300 349
<210> <211> <212> <213>	329	ns				
tgtttetett gttecaaage getggecaat geteegaget	ggegetgtgt etteaggeee eaaggageet ageeeaggag	ttteggggtg agaacgccct tataaacact tggaggagac	ctgtggctgc taggcactga caagcagcta gcaccgcgca cgcagtagac	gagtggatcc cgggaccgcc caatgacaca	gaaageggaa caatacegae ggeaetetet	60 120 180 240 300 329
<210> <211> <212> <213>	574	าธ				
tggettgtet tgatgggega aatgtgaaga	cagtcaggcc ggagtcacat caaccctttt agaggagctg	gtacttaggt caaccaaaaa gaaccatggc	geteaeggaa gacaatttae gtaatteaaa agaagaaagt tateaagtte	agaaagtcat aatggcagaa aaaagaagtt	ctctgcagct ctgtttatgg gaggatgacg	60 120 180 240 300

ttttsgaacag agttaaccc agctcatatt caaggggact aaagaatg gaggtattac tgctgcattc aagcctacaa gtcaacacta cacgaat cagtgcctgc ctcaccaata aattttcatc ctgagtctag atcttcag ttggtcagcc tttttctaaa cctgtaagtg tttctaaaac tatacgg ccattggatg ttgtttatca atatcaacag tacc	ca acatcaaatc 420 at agttetgtta 480
---	--

<210> 683 <211> 627 <212> DNA

<213> Homo sapiens

<400> 683

cttgatgttt ttcacttgaa gacattttga actttttctt acagggtttc tctgctgggc 60 tgtttgcatt ctaccatgat aaagatggaa atcctctcac ttcaagattt gcagatggcc 120 tcccaccttt taattatagt ctgggattat atcaatggag tgataaagta gttcgaaaag 180 tggagagatt atgggatgtt cgagataata agatagttcg tcacactgtg tatctcctgg 240 taacgcctcg tgttgttgag gaagcacgaa aacattttga ttgtccagtt ctagagggaa 300 tggaacttga aaatcaaggt ggtgtgggca ctgagctcaa ccattgggaa aaaaggttat 360 tagagaatga agcgatgact ggttctcaca ctcagaatcg agtactctct cgaatcactc 420 tggcattaat ggaggacact gggagacaga tgctgagccc ttactgtgac acgctcagaa 480 gtaacccact gcagctaact tgcagacagg accagagagc agttgccgtg gtgtaatttg 540 cagaagttcc ctaagccttt accacaggaa taccagtact ttgatgaact cagtggaata 600 cctgcagaag atttgcctta ttatggg 627

<210> 684 <211> 1271

<212> DNA

<213> Homo sapiens

<400> 684

geggegege geegeagaca getggtgtee egeeggagaa eggeegagat ateceegeeg 60 geggaggage agecceageg ceaggeetee egacgteece gggeageage ceaaggeege 120 gaagtccccg tctccagttc agggcaagaa gagtccgcga ctcctatgca tagaaaaagt 180 aacaactgat aaagatccca aggaagaaaa agaggaagaa gacgattctg ccctccctca 240 ggaagtttcc attgctgcat ctagacctag ccggggctgg cgtagtagta ggacatctgt 300 ttctcgccat cgtgatacag agaacacccg aagctctcgg tccaagaccg gttcattgca 360 geteatttge aagteagaac caaatacaga ecaacttgat tatgatgttg gagaagagca 420 tcagtctcca ggtggcatta gtagtgaaga ggaagaggag gaggaagaag agatgttaat 480 cagtgaagag gagataccat tcaaagatga tccaagagat gagacctaca aaccccactt 540 agaaagggaa accccaaagc cacggaqaaa atcaqqqaaq qtaaaaqaaq aqaaqqaqaa 600 gaaggaaatt aaagtggaag tagaggtgga qqtqaaaqaa qaqqaqaatq aaattagaga 660 ggatgaggaa cctccaagga agagaggaag aagacgaaaa gatgacaaaa gtccacgttt 720 acccaaaagg agaaaaaagc ctccaatcca gtatgtccgt tgtgagatgg aaggatgtgg 780 aactgtcctt gcccatcctc gctatttgca gcaccacatt aaataccagc atttgctgaa 840 gaagaaatat gtatgtcccc atccctcctg tggacgactc ttcaggcttc agaagcaact 900 totgogacat gocaaacato atacagatca aagggattat atotgtgaat attgtgctcq 960 ggccttcaag agttcccaca atctggcagt gcaceggatg attcacactg gegagaagec 1020 attacaatgt gagatotgtg gatttacttg togacaaaag gcatototta attggcacat 1080

WO 01/53455					PCT/US00.	35017
tgagaagaag	gctgccaatg	tggcacacaa	ggcaaaaagc	caccctgagg	tgctgattgc	1140 1200 1260 1271
<210> <211> <212> <213> <213>	685	18				
<221> <222>	misc_featur (1)(685) n = a,t,c (1				
tgcgaaccgg gccaaaagac gcatcaaaaa tgagaggtet agaaaaagctg tgtgaaaaag agaagagatt caaatgggac gaaagaggac tcccctggag	685 tcccacgcgt tcttgcagaga tacctcttga tcttctggaag gaggctagtc gtccttgcag gaactgagta gaactgagta gaacgatcc cctgtcgtcc ccagccattg cangaaattn cctgtggaaa	gcettetgge gtgagagtga caatcagtte tgaaggtgte atctgettga gagtcaaate acagagaagt tgaagaaceg ctcccattga tcaacetnet	tttgagccaa agatgaggg ccttgatgga agagttcaat gcctgttaaa aaagaagaca agcattcaat gcaggcagag acatgtgctc	caggaagaac gacaatgatg aagaataggc gtcagttctg acttcatctt gtggagttac aaaaccgcac cagctggttn agtggctgga	tageggattt gagagagaaa ggaaattgge aaggatcagg etttggeeae etetgaaeaa aagteetete tteeeetgga aaggeagaae	60 120 180 240 360 420 480 540 600 660 685
<210> <211> <212> <213>	962	ns				
tgacataact ttgtcttcta aaccaatgtt	686 tegaetttaa ggagecagtg gagaatagat taacatteac teagttetea	cagtgccatg ttcatgttcc agaggatttt	aagaactacg attcttctgc actgcttaac	agattagcct aatggttaat agccatcttg	ggatattaac tcacacagaa ccccaaatat	60 120 180 240 300

teccagtage cactaatggg gaacgattte ettggcagga getaaggete eccagtgtgg 360 teatteetet ecattatgae etetttgtee acceeaatet eacetetetg gaetttgttg 420 catetgagaa gategaagte ttggteagea atgetaeeea gettateate ttgeaeagea 480 aagatettga aateaegaat gecaceette agteagagga agatteaaga tacatgaaac 540 caggaaaaga actgaaagtt ttgagttacc ctgctcatga acaaattgca ctgctggttc 600 cagagaaact tacgcctcac ctgaaatact atgtggctat ggacttccaa gccaagttag 660 gtgatggctt tgaagggttt tataaaagca catacagaac tettggtggt gaaacaagaa 720 ttcttgcagt aacagatttt gagccaaccc aggcacgcat ggctttccct tgctttgatg 780

WO 01/53455	;				PCT/US00	0/35017
tatccaacat	caaagccaac gccaaaggtt tgtaaaaatg	aagacaattg	aacttgaagg	aggtcttttg	gaagatcact	840 900 960 962
<210> <211> <212> <213>	676	ns				
agcagggaaa tcctggtccc ctctgctggg tgactcccaa aggggcttac ccaactttca ttgagaagtt tggtggctcc gcactctggt	gatecetegg aagecagtge actectgeag etgetggeag gageaacege aggagectee gttetaceca ectgacaaag getgtgetet gggaggaggag	cccageggaa etgetggtge eccetgtgea aagatggagg gggaaagtgg aggatggetgea agcatggetg atgagacage gtgeagagee	gcacagctca tgcttcttac aaagctactt gcaagaaacg ccctactgga gggtcacctg agaacaggca tggctgatgg caaggaaggt	gagctggtet cctgccctg ccctacctg ggagctcttc gctgggctgc cctagacca cctccaatat ctccatggat cctgcaggag	gccatggaca cacetcatgg atggccgtgc agccagataa ggaaccggag aatccccact gagcggtttg gtggtggtct gtccggagag	60 120 180 240 300 420 480 540 600 676
<210> <211> <212> <213>	639	ns				
gaatgaatac tegtetteet ettggggett ggetteagaa etgtgetget egetgttaga tgaaggagtg agetetteag	688 ggggtatttg ctccgaagce tccgggggac tcatgggact ctccagocta gctgctgtg gaaagtettc ggtggccatc aatgatggcc catgggtcct	gittigtici aacgigggtc ccctctgcca atggatccca ctggagcgcg cagtacattg gagagcgact gtggctgcgg	ccaaatggga agggcacaga cattttttgg aactcgggag gcatgttctc acctccatca ctgtccagcc acacgctgca	atagetecae gagatattta aggttgggaa aatggetgeg eteaceetee ggatgaattt tgtgeetege gegeetgggg	tataccagcc atgtcaccct agttgctaga tccctgctgg ccgccccgg gtgcagacgc ttcagacaag gcccgtgtgg	60 120 180 240 300 360 420 480 540 600

<210> 689 <211> 116

tcatcctggc cgaactgggg agcgatccca cgaaaggct

600 639

<212> DNA <213> Homo sapiens

<400> 689 tttttttttt ttgagatgga gtcttgctct gtcacccagg ctggagtgcc gtggcacgat 60 cheageheae tgcaacetee aceteccagg theaagegat tetegreet cageet 116

<210> 690 <211> 509 <212> DNA <213> Homo sapiens

<400> 690

acaaacaggt ggggtcaagc acggagagag aactgcccag ggtataaaaa gggcccacag gagaccggct ctaggatccc aaggeecaac teecegaacc acteagggte ctgtggacag 120 ctcacctagt ggcaatggct ccaggctccc qqacqtccct qctcctqqct tttqccctqc 180 tetgeetgee etggetteaa gaggetggtg eegteeaaac egtteegtta teeaggettt 240 ttgaccacgc tatgctccaa gcccatcgcg cgcaccaget ggccattgac acctaccagg 300 agittgaaga aacctatatc ccaaaggacc agaagtattc attectgcat gactcccaga 360 cotcottotg ottotcagac totattocga caccotccaa catggaggaa acgcaacaga 420 aatccaatct agagctgctc cgcatctccc tgctgctcat cgagtcgtgg ctggagcccg 480 tgcggatcct catgagtata gtccccaac 509

60

<210> 691 <211> 1362 <212> DNA <213> Homo sapiens

<400> 691

tttcgtgaaa cttatcaaga aacaccaggc tgctatggag aaagaggcta aagtgatgtc 60 caatgaagag aaaaaatttc agcaacatat tcaggcccaa cagaagaaag aactgaatag 120 ttttctcgag tcccagaaaa gagagtataa acttcgaaaa gagcaqctta aaqaggagct 180 aaatgaaaac cagagtaccc ccaaaaaaga aaaacaggag tggctttcaa agcagaagga 240 gaatatacag catttccaag cagaagaaga agctaacctt cttcgacgtc aaagacaata 300 cctagagetg gaatgeegte getteaagag aagaatgtta ettgggegte ataaettaga 360 gcaggacett gtcagggagg agttaaacaa aagacagact cagaaggact tagagcatgc 420 catgetacte egacageatg aatetatgea agaactggag tteegecace teaacacaat 480 tcagaagatg cgctgtgagt tgatcagatt acagcatcaa actgagetca ctaaccaget 540 ggaatataat aagcgaagag aacgagaact aagacgaaag catgtcatgg aagttcgaca 600 acagoctaag agtitgaagt ctaaagaact ccaaataaaa aagcagtitc aggatacctg 660 caaaatccaa accagacagt acaaagcatt aagaaatcac ctgctggaga ctacaccaaa 720 gagtgagcac aaagctgtte tgaaacgget caaggaggaa cagacccgga aattagctat 780 cttggctgag cagtatgatc acagcattaa tgaaatgctc tccacacaag ccctgcgttt 840 ggatgaagca caggaagcag agtgccaggt tttgaagatg cagctgcagc aggaactgga 900

gctgttgaat	gcgtatcaga	gcaaaatcaa	gatgcaagct	gaggcacaac	atgatcgaga	960
gcttcgcgag	cttgaacaga	gggtctccct	ccggagggca	ctcttagaac	aaaagattga	1020
agaagagatg	ttggctttgc	agaatgagcg	cacagaacga	atacgaagcc	tgttggaacg	1080
tcaagccaga	gagattgaag	cttttgactc	tgaaagcatg	agactaggtt	ttagtaatat	1140
ggtectttct	aatctctccc	ctgaggcatt	cagccacagc	tacccgggag	cttctggttg	1200
gtcacacaac	cctactgggg	gtccaggacc	tcactggggt	catcccatgg	gtggcccacc	1260
acaagcttgg	ggccatccaa	tgcaaggtgg	accccagcca	tggggtcacc	cttcaaggcc	1320
caatgcaaag	gggtacctcg	aggagcagta	tgggagtccg	ct		1362

<210> 692

<211> 503 <212> DNA

<213> Homo sapiens

<400> 692 gatcacgtgg gcagctccgg gcgcggcgct tgttttggtt tccttctaac ttqcccacqq 60 cagetteggg gtgagegact tteetgeace agetgeegeg cetgeteaca ceetqacete 120 gtttteggge tetetgagee egeagtteeg caageceetq qqqeqqete etqeeatqee 180 gctagtccgc tacaggaagg tggtcatcct cggataccgc tgtgtaggga agacatcttt 240 ggcacatcaa tttgtggaag gcgagttete ggaaggetae gateetacag tggagaatae 300 ttacagcaag atagtgactc ttggcaaaga tgagtttcac ctacatctgg tggacacagc 360 agggcaggat qaqtacaqca ttctqcccta ttcattcatc attqqqqtcc atqqttatqt 420 gettgtgtat tetgteacet etetgeatag ettecaagte attgagagte tgtaccaaaa 480 gctacatgaa ggccatggga aaa 503

<210> 693

<211> 1671

<212> DNA

<213> Homo sapiens

<400> 693 geggettgtg tecaegggae geggtaegga tgetteteeg geeatgagga aaceageege 60 tggcttcctt ccctcactcc tgaagggtga gaggtttaca cctgctccaa cagactctcc 120 cogggctagt cototocoto cogagageto tgottttacg gtttctggat cgcttcctca 180 tggtggtcgc gctgggtcgg ctccctaggt cctgggatac tcccatctcc ccccgcccgc 240 ggeeggacet ttgectetgt etetagacte eeceegeeet ggteageagg gataaceete 300 acceegttee taatttgeea gtetgggtet gtetgeeetg gteteggage gggttttggg 360 gttoggtoot ttcatcatcc ggtogcccgc tccgcagtgc tgctcctgcc tctggcacct 420 geogragece aggattegae teaggeetee actecaggea geoetetete teetaeegaa 480 tacgaacget tettegeact getgaeteea acetggaagg cagagactac etgeegtete 540 cgtgcaaccc acggctgccg gaatcccaca ctcgtccagc tggaccaata tgaaaaccac 600 ggettagtge cegatggtge tgtetgetee aaceteeett atgeeteetg gtttgagtet 660 thetgecagt teacteacta cogtigetee aaccaegtet actatgecaa gagagteetg 720 tgttcccagc cagtctctat tctctcacct aacactctca aggagataga agcttcagct 780 gaagteteae eeaccaegat gaeeteeeee ateteaeeee aetteaeagt gaeagaaege 840 cagacettee agecetggee tgagaggete ageaacaaeg tggaagaget cetacaatee 900 teettgteee tgggaggeea ggageaageg eeagageaca ageaggagea aggagtggag 960 cacaggcagg agccgacaca agaacacaag caggaagagg ggcagaaaca ggaagagcaa

1020

```
gaagaggaac aggaagagga gggaaagcag gaagaaggac aggggactaa ggagggacgg
                                                                  1080
gaggetgtgt eteagetgea gacagaetea gageecaagt tteaetetga atetetatet
                                                                  1140
totaaccett cetetttige teecegggta egagaagtag agtetactee tatgataatg
                                                                  1200
gagaacatcc aggagctcat tegatcagcc caggaaatag atgaaatgaa tgaaatatat
                                                                  1260
gatgagaact cctactggag aaaccaaaac cctggcagcc tcctgcagct gccccacaca
                                                                  1320
gaggeettge tggtgetgtg ctattegate gtggagaata cetgeateat aacceccaca
                                                                  1380
qccaaqqcct qqaaqtacat qqaqqaqqaq atccttqgtt tcqqqaaqtc qqtctqtqac
                                                                  1440
agcottgggc ggcgacacat gtotacctgt gccctctgtg acttctgctc cttgaagctg
                                                                  1500
gagcagtgcc actcagaggc cagcctgcag cggcaacaat gcgacacctc ccacaagact 1560
ceetttgtca geecettget tgeeteecag ageetgteea teggeaacea ggtagggtee 1620
ccagaateag geogetitta egggetggat tigtaeggtg ggeteeacat g
                                                                  1671
```

<210> 694
<211> 898
<212> DNA
<213> Homo sapiens
<220>
<221> misc_feature
<222> (1)...(898)
<223> n = a.t.c or g

<400> 694 ttttttttt ttgtgacagt ttctccactt tattagcctg gagctcctcc ctgccagccc caggggctgg tegetogtee etgggcacag tgagcaggge tgaggtcaga egggttegge 120 cettggccat ggcagettgg ttgggacage egggecaagg gaaaaaaaagg tgcaaaagte 180 caaatgctgg cacttcaggt gtggceggca cecagecagg cgcagtgggt gggcagggcg 240 ccatgottet etectggega caggteggee gtgtageage geececteec agcagecact 300 aggaacaget ggtgattete gecaggaact getgegeeca ceactegtet aggteaatgg 360 ggcacaaagt totgcageog gggattgggg gtcetotoca cgtactgcac aggcettgge 420 cegeceteae eggetgggee accatecage tgetgttgca ectgetgeea ggetteggae 480 acaaagegga catteteete gtgggeeact gtgtaggtet cetgggteee etegaaggat 540 ggggacqtgg agggggccq ccqqccattc acacgattga acacaaqcct tqqccctqqa 600 ctgcaggaag ggaggagacg gacatggttg gtgcccatcc caggtgcggt gctgcctggc 660 agaactcagg agcagccccg ggccagccca ctttccccag acttggccag cctaggcact 720 tectgaacca gagagagcag ccacccacag cageeggtgg cccaggeete tettgeagte 780 cccaagccat cggcagetea geteacaeet geagecetgt gteetgaggg aagtgagtga 840 ctgtaggggg ganatgence geetagaggt tegateggtg gaaagacage egggeece 898

<210> 695 <211> 630 <212> DNA <213> Homo sapiens

<400> 695

caaccocgce gcoggggaca tgtocaacce ctgaagcogg aggaacggge cagtcagact 60 gcgcccgaca ggtatattga aaagtctgat tcagttacaa tcagtgtatg gaatcacaca 120 aagatccata agaaacaagg tgctggattt ctccgttgtg ttcgfctttt tccagtgca 120

tcaaccacct	caaagacact	ggttatcaga	ggttggattt	atgcaaactt	gggccaaagg	240
acagttagaa	gacagtaget	gaagaagcat	ctgtagggaa	tccagaagga	gcattcatga	300
agatgttaca	agcccggaag	cagcacatga	gcactgagct	gactattgag	toggaggege	360
cctcagacag	cagtggcatc	aacttgtcag	gctttgggag	tgagcagcta	gacaccaatg	420
acgagagtga	tgttagcagc	gcactaagtt	acatcttgcc	ttatctctca	ctgagaaatc	480
taggtgcaga	atcaatattg	ttaccgttca	ctgaacagct	attttcaaat	gtacaagatg	540
gagatagget	cctgagtatt	ttgaaaaaca	atagaaagag	cccctcacag	tccagccttc	600
taggtaacaa	atttaaaaac	aaaatatttg				630

<210> 696 <211> 879 <212> DNA <213> Homo sapiens

<400> 696 tttcctctqa accacaçaca ccacttcccc aatctacaqq accatttta acacctaaaa 60 cttgtcggat tgcttttat tttcaagctc aaaagacgat agagaaagaa tacttgaagg 120 ccaagaaget tgagagaaga aaaattteag aaaaattgte teaatttgae tagaatatea 180 atgaaccagg aaaactgaag caccttccct aaagaaaact tgggtataca attactccac 240 agacagaget gagggttttt tacccaaatc agtcactgga ttttgctgcc tgatacgtga 300 atettettgg aatttttete atgtggatet aaggggaatg etttattatg getgetgttg 360 tccaacagaa cgacctagta tttgaatttg ctagtaacgt catggaggat gaacgacagc 420 ttggtgatcc agctattttt cctgccgtaa ttgtggaaca tgttcctggt gctgatattc 480 540 tcaatagtta tgccggtcta gcctgtgtgg aagagcccaa tgacatgatt actgagagtt 600 cactggatgt tgctgaagaa gaaatcatag acqatgatga tgatgacatc accettacag ttgaaqcttc ttgtcatgac ggggatgaaa caattgaaac tattgaggct gctgaggcac 660 tcctcaatat ggattcccct ggccctatgc tggatgaaaa acgaataaat aataatatat 720 ttagttcacc tgaagatgac atggttgttg ccccagtcac ccatgtgtcc gtcacattag 780 atgggattcc tgaagtgatg gaaacacagc aggtgcaaga aaaatatgca gactcaccgg 840

879

<210> 697 <211> 719 <212> DNA <213> Homo sapiens

qaqeetcate accaqaacaq cetaaqaqqa aaaaaaaaa

<400> 697 ggcacgaggc gagcggagtt agcagggctt tactgcagag cgcgccgggc actccagcga 60 ccgtggggat cagcgtaggt gagctgtggc cttttgcgag gtgctgcagc catagctacg 120 tgegtteget aegaggattg agegteteca eccatettet gtgetteace atetacataa 180 tqaatcccag tatgaagcag aaacaagaag aaatcaaaga gaatataaag actagttctg 240 teccaaqaaq aactetgaag atgatteage ettetgeate tggatetett gttggaagag 300 aaaatgaget gteegeagge ttgteeaaaa ggaaacateg gaatgaceae ttaacateta 360 caacttccaq ccctqqqqtt attqtcccaq aatctaqtqa aaataaaaat cttqqaqqaq 420 tcacccagga gtcatttgat cttatgatta aaggtatgaa aaaatagata acttttgtct 480. taattttaaa ttatgatata aggaaaaatt tgttaatact attatgaatt ctgccaatta 540 ctgtaatctg gggatagtat aacagcacta taaatgtttt tgtatgtgac catttgtttg 600 acaagateca tgtgtggatg aaatgttagg aaaagggagg cccagtggaa gtgggctcac 660

acctgtaatc ccagtaggct	agggaggttg	aagcaagagg	atggcttgag	tctagaagt	719

<210>	698	
<211>	420	
<212>	DNA	
<213>	Homo	sapie

<400> 698
acattrogty ttaatggogg gcagtagcog ctgaggggat tgcagataac cgcttccogc
acattrogty ttaatggogg gcagtagcog ctgagggggt tgcagcogg agctcgcag
120
catgtctgtg gtaccgcca atcgctcgca gaccggctgg cccgggggg tcactcagtt
180
cggcaacaaag tacatccagc agcagacc cctcaccctg gagcgacca tccacctgta
29
29
20
20
20
20
20
20
20
20
20
20
20
20
20
20
20
20
20
20
20
20
20
20
20
20
20
20
20
20
20
20
20
20
20
20
20
20
20
20
20
20
20
20
20
20
20
20
20
20
20
20
20
20
20
20
20
20
20
20
20
20
20
20
20
20
20
20
20
20
20
20
20
20
20
20
20
20
20
20
20
20
20
20
20
20
20
20
20
20
20
20
20
20
20
20
20
20
20
20
20
20
20
20
20
20
20
20
20
20
20
20
20
20
20
20
20
20
20
20
20
20
20
20
20
20
20
20
20
20
20
20
20
20
20
20
20
20
20
20
20
20
20
20
20
20
20
20
20
20
20
20
20
20
20
20
20
20
20
20
20
20
20
20
20
20
20
20
20
20
20
20
<

<210> 699 <211> 422 <212> DNA <213> Homo sapiens

<400> 699 geggaaggag aagatgtgee geegetgeea acgtegageg gegaeggetg ggaaaaagat 60 cttgaagaag ctctggaagc aggaggttgt gatcttgaaa cgttgagaaa tataattcaa 120 ggaagaccgc tgcctgctga tctgagggcc aaagtttgga agattgctct gaatgttgca 180 ggaaaaggtg atagtttggc atcatgggat ggtattttag acttgccaga acagaacact 240 attcacaaag attgcctgca gtttattgac cagctttcag tgccagagga gaaggcagca 300 gaattacttt tggatattga atctgtaatt accttttatt gtaaatcacg taacattaaa 360 tatagcacat cocttagetg gatacateta etgaaaccat tggtgcatet teaactgeea 420 cg 422

<210> 700 <211> 412 <212> DNA <213> Homo sapiens

<400> 700
caquetocacte ceaaatatag coctetocag aaaccacttg gatagaaaa agtecaaaga
6
gaactgaggt gtccaacaca tgagtgagge ettectggat etetagete egteaagcet
120
teccaacacc acgaggaaca aaaatgagce atecaaatga getttaccca aattectgae
180

WO 01/53455	i				PCT/US00	/35017
cgccacaatg aagaagaggc	aagagcaatg gtgcacatga aaaccccagg gtgaagtatg	atgtcctgcc ttcttattag	tgatgctctc gctgtgctcc	aagagcatca aaaatcatca	acaatgccga tctggtttct	240 300 360 412
<210> <211> <212> <213>	977	ıs			1	
<400>		-hhh	h			
cactggggaa	tgccggcgtt gctcggagcg	ccgcctccgc	tgccgccgcc	tcctgcctgg	atatgggtac	60 120
	tcccctggcc tggcgatggc					180 240
	ctgcgagaga					300
cagegeeeeg	gcaccatcaa	gcatggatcg	gcgctggacg	tgatactata	catggggttc	360
	gcgcacaaaa					420
	tattetecea acetecgtee					480 540
	agatctgcgg					600
	ttatgtgcga					660
	gctggaaatg tcggcctctt					720 780
	ctgcagaggc					840
cagctacatg	tgaccctggc	ttaccacttc	caagccagcc	acctacccac	cctagagaaa	900
ctggcccaga gatatccgat	acattgacgt	caagctaggg	tgtgactggg	tggctaccat	attttctcgg	960 977
gacacecgae	cogecae					377
<210>						
<211> <212>						
	Homo sapier	ıs				
<400>	702					
aggagagaga	ecoccattat		at aggregation	tractic and towards	at anaaa	

<400> 702
400> 702
6
6
acastystett caacetgcaa teateaaaga acetgtetat titettagga aaateatgt 120
taacetgtettt gaaggetatg attittgeet taeteccaaa gecaeggaag aaegttgetg 120
6
19
19
19
19
19
19
19
19
19
19
19
19
19
19
19
19
19
19
19
19
19
19
19
19
19
19
19
19
19
19
19
19
19
19
19
19
19
19
19
19
19
19
19
19
19
19
19
19
19
19
19
19
19
19
19
19
19
19
19
19
19
19
19
19
19
19
19
19
19
19
19
19
19
19
19
19
19
19
19
19
19
19
19
19
19
19
19
19
19
19
19
19
19
19
19
19
19
19
19
19
19
19
19
19
19
19
19
19
19
19
19
19
19
19
19
19
19
19
19
19
19
19
19
19
19
19
19
19
19
19
19
19
19
19
19
19
19
19
19
19
19
19
19
19
19
19
19
19
19
19
19
19
19
19
19
19
19
19
19
19
19
19
19
19
19
19
19
19
19
19
19
19
19
19
19
19
19
19
19
19
19
19
19

<210> 703

<211> 987 <212> DNA <213> Homo sapiens

<400> 703 ttttttttt ttgtgtttat aacaggtttt acttttttc ttaaaatggg gatgttctta ctaaatacca ttttatttca tttcttcaca gatcttctgg ttcttgatca tctataatta 120 tcaagtgteg tatataggga acaagtattg atgttcaata tgattcaaac tattactgtt 180 ccatagicag tggagetttt teaatgteca gaaagaatac tttcaatett tatgaacage 240 ctaggatttt gcagttgttt ctgaaggete aaattgteet getteaaatt tttetttgaa 300 ttttaaqtaq tctcttcttt tatcaaaata ttttatccac tgttggggac aacttgattc 360 qaaaqaqctt cttaacttct tqcattqaga aqcatcctct aagttctcat ctaaacactt 420 ccagtactca tcccgggccc cccagcagac ctgtctttcc ttcatagatg gggctgccat 480 teetactgeg atgaagetet etgecegece aegteegget teetttegat gtegaeggga 540 ggaaactgtc acgcaggcca ccaaccggcg gtggagggcg cggtgccgag tcctgccact 600 geagggtege coegetgget caagetetag aagegtagae etceccaqee qeaaaaaqea 660 agtcacgcqg cgaaaccgcg gactcttttg accettccga gctaccattt actttccata 720 gaggggggg acttoetgtt tegettttat ettgtetege tetteegece agtetegagt 780 geagtggtga gaacacgget tactgcagec tcaaaatcct ggacccaaaa gatcetecca 840 ecteagectg cetcccaggt agetgggact acaggcgcac aacaccatcg ettettggat 900 960 taaaaqaaaa qqatqaaacq qqccccaqaa aqaqqcqqtq acqtcccaqa acccatqqca

987

<210> 704 <211> 473 <212> DNA <213> Homo sapiens

(213) Homo Saprem

qqqqaqttqq qaaaataaat atttqta

<400> 704 caectgeace ggetgegagg ageagggage teetcaaaga getcaggaac ggacaggaca 60 tggacacagt ggtctttgaa gacgtggttg tggatttcac gctggaggag tgggccttgc 120 tgaatcctgc tcagagaaaa ctctacagag atgtcatgct ggagaccttc aagcacctgg 180 cetcagtaga taatgagget cagettaaag ceagtgggte tatttetcag caggataett 240 ctqqaqaaaa attatccctc aaacaqaaaa taqaaaaqtt cacaaqaaaq aatatatggg 300 cetcectttt aggaaaaaat tgggaagaac atagegttaa agacaagcac aacaccaagg 360 agagacattt gagcagaaat ccaagggtgg agagaccatg taaaagcagt aaaggtaata 420 473 aacgtggaag aaccttcaga aagactcgaa attgtaatcg tcatctgegc agg

<210> 705
<211> 435
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(435)
<223> n = a.t.c or q

```
<400> 705
ttttttttt caattattta taaaacttta atgagggaga ggccctaact cttcctcagc
                                                                    60
tetaceaact actgaaagga aaagctggtg ctggggagcc ctccacacca ctgactgatg 120
aatttcagca cgtcctggca cactgggctg tgggaggtct gtgagcaaat ggaagaacat
                                                                   180
gagaggaact tgttaatgct ggaaatacaa aatcagctcc atcgcaggct tcagggtctq
                                                                   240
catchgoott congraatce caccoatcht intagigit angiggeth thighthett
                                                                   300
ttgagacaaa qtcttqcttt gtcgcccagg ctggagtgca gtggcacaat ctcaqctcac
                                                                   360
tgcaagetet geeteeggg ttcaageaat teteetgeet cageeteete agtagetgge
                                                                   420
attataggeg egtge
                                                                    435
     <210> 706
     <211> 894
     <212> DNA
     <213> Homo sapiens
     <400> 706
cggcacgagg ttgaggcggc ggcgcgaggc agtatggttt gaagtggtga acatggattt
                                                                    60
ttotoggott cacatgtaca gtoctococa gtgtgtgccg gagaacacgg gctacacgta
                                                                    120
tgcgctcagt tccagctatt cttcagatgc tctggatttt gagacggagc acaaattgga
                                                                    180
ccctgtattt gattctccac ggatgtcccg ccgtagtttg cgcctggcca cgacagcatg
                                                                    240
cacctgggg gatggtgagg ctgtgggtgc cgacagcggc accagcagcg ctgtctccct
                                                                    300
gaagaaccga gcggccaggt gagcaccgct gcacttcctc tccatctgat ctctaacacc
                                                                    360
agttaaaacc aagcttccat actttttggt ctgtaaagcc gcaccctgtc tcgagcttaa
                                                                    420
qgatatqtqt qtqtatqtqc qtqtacaqac acacaaacct qccatataaa qtqqtaqttt
                                                                    480
gctgcaaata aagactgaaa ggaactctgg aatctgtgtg gcttgtctag tattqatqtt
                                                                    540
ctgctgttct tgtttcaagt tctcttcgct ggtgcacgcc acqtgcaqtg ccaqcactca
                                                                    600
ggtctggaag ctttgtggtc ctgtggtggg agctcagcta cagctgtcct accacatgtg
                                                                    660
taaagaggaa ggaatcttac agattacaca tgctgtcgtg gacgatctcc gtgtccagtt
                                                                   720
cattetttt tetggagaeg gagteteget ettgtegece agggtggaat geagtggeae
                                                                   780
gateteaget cactgeetee tetqteteee qqqtteaaqe qattetaetq cacqcaqeet
                                                                   840
cctgagtagc tgggattaca ggcgcccgcc accacgcctg ggcaacagag tgag
                                                                   894
```

```
<210> 707
<211> 410
<212> DNA
<212> DNA
<213> Homo sapiens
<220>
<221> misc_feature
<222> (1) . . . (410)
<223> n = a.t.c or g
```

<400> 707
tttctgcagg actgtaaact ggattcctgg aacctttgat attcctggct gtgtatagtg

cctgttggtg	gactgtactg	atactcaact	agagtgtgaa	gggactggat	tectgecect	120
gagacacaat	gcaagctgta	gtgcccttga	acaagatgac	agccatctca	ccagaacctc	180
aaactctggc	ctcgactgaa	caaaatgagg	tcccaagagt	ggttacttct	ggggaacaag	240
aagctatttt	aagaggaaat	gctgctgatg	cagagtcttt	cagacagagg	tttaggtggt	300
		ggacccagga			gagetetgea	360
atcagtggct	gagaccagac	attcacacga	aagaancaga	ttttagagct		410

<210> 708 <211> 650 <212> DNA

<213> Homo sapiens

<400> 708 geogattige eigiteteae geoccaccet cagacetage eggageaaag titeaettat 60 agaagggaga ggagcgaaca tggcagcgcg ttggcggttt tggtgtgtct ctgtgaccat 120 ggtggtggeg ctgctcatcg tttgcgacgt tccctcagcc tctgcccaaa gaaagaagga 180 gatggtgtta tctgaaaagg ttagtcagct gatggaatgg actaacaaaa gacctgtaat 240 aagaatgaat ggagacaagt toogtogoot tgtgaaagco ccaccgagaa attactcogt 300 tatogtoatg ttoactgoto tocaactgoa tagacagtgt gtogtttgca agtatgaact 360 ccaactacgc tttaaaatta aataactcat ataacgttaa ccatttetea ateccagaag 420 ggccaagtta gtgcagtagg tacttaaata atgtgtatac cttactcagg atgtctatgg 480 tagcaatact actgctcttt tatagtcaat tottgattat cogtatcagt gggggaagca 540 tggataaata attgtggtag ccatcataaa agtaacttaa agatcaaaca gtcatcttat 600 aaattagtat caacttggcg gggcatgggg gctcatgcct gtaatccccg 650

<210> 709 <211> 534 <212> DNA <213> Homo sapiens

<400> 709 tttcgtggcg aacgaggccc cacctctgcc gggagcggga cgagcgcgca ggcgcagtct 60 coccaggitg tagacgctgc ggcccggccc ggcgggtaaa taacagatgc gggtgaaaga 120 . tccaactaaa gctttacctg agaaagccaa aagaagtaaa aggcctactg tacctcatga 180 tgaagactet teagatgata ttgetgtagg tttaacttge caacatgtaa gteatgetat 240 cagogtgaat catgtaaaga gagcaatago tgagaatotg tggtcagttt gotcagaatg 300 tttaaaagaa agaagattot atgatqqqca qotaqtactt acttotqata tttqqttqtq 360 cctcaagtgt ggcttccagg gatgtggtaa aaactcagaa agccaacatt cattgaagca 420 ctttaagagt tccagaacag agccccattg tattataatt aatctgagca catggattat 480 atggtggtat gaatgggatg aaaaaatttt cacccctttg aataaaaaag gttg 534

<210> 710 <211> 478 <212> DNA

<213> Homo sapiens

cctctaggaa ggagcgtgga tttggtgcgg tcctggaatc ggtgatgctt cggggccttc	ctattcgaga cttgaatgag gaggagagac tcagcattcg ccagaagctg ctgggagaca ctgtccggaa	gacaggaggg agggtgaagg tgccagccc ccctgactc caggcgtcgg ccttcatagc	tcagagggag tggcggctgg ctcttctctg cccattaact caaaacatgt caccgtcggc	ttctgatgtc agcctaggag ctttctggaa atcctctcca gcctctgccc ttcctgatcc atagacttca ctcaggcatg	gctgagccaa gcaggtggcc tgtgtctctc ctacccccta aattcaaaga gggtgaggtg	60 120 180 240 300 360 420 478
<210> <211> <212> <213>	585	ns				
ttccgtaatg cgaagcaaaa tgctgccaac tgtggtcatg ggaacttgag tccagctcat aaacatggct ctctctatgc	cggagctcag gagttagcc agaccagttt aaggtatggt attcttaaga agtattacac tgcctatctt atatgactgg	acagtttatt tcatctttga attgctcttt aaacacatgt gaatgggaaa ctttatgttt tgtcacttta tcccagtgtc	gctaaatgaa atggttgcga tttcccagtt tatgttttgg tttagtggca gtacctgggc aatttatcat ttcacttatc	acgaggtgtg gaagctttgg tttettgata gcattaacgt aaggtttatg aaactcaaac agctcattgt cgtcacccgt tctttgagga cttgt	ctcaaatcac aagtcttggt gaagagatta ggtcacttat ctcgtttaaa aactggagaa tgcaagtgat	60 120 180 240 300 360 420 480 540
<210> <211> <212> <213>	391	ıs				
ttgcgttcca aaagcgtgta tgaaaagaga tgttttccag	aactggtttt ccatgattac tcagcaaacc gagcttattg ttccatgaga	tttctccttc aaagcacttc gaatggggcc aatgtccagt	agcgaatagg tgtgcaagaa tctcaatact ttcctggaat	ttttattatt ctaaatgaat ttttcttaag tctaggactg ggctcctcag tacaccaata	atgaaacaga aaatggagga tgtattgctc aatctgggaa	60 120 180 240 300 360

cccagcagat aatgaataaa acagcacttg c

391

```
<210> 713
<211> 524
<212> DNA
<213> Homo sapiens
```

<400> 713

atccccacag ggtaatgggt gtcccgatgt cacgggggac tctgtgatcc gtgttcccct 60 gaccetecta gtgcacaact tggccgggct cactgggctc ctgcaccact gcctgtcagg 120 teegetgeca geeceaagee eeceaecage catgagetee teeagaaagg accacetegg 180 egecageage teagageece teeeggteat cattgtgggt aacggeecet etggtatetg 240 cetgtectae etgeteteeg getacacace etacaegaag ceagatgeca tecaeceaca 300 ecceptgetg cagaggaage teacegagge eccgggggte tecatectgg accaggacet 360 ggactacctg teegaaggee tegaaggeeg ateceaaage eeegtggeee tgetetttga 420 tgcccttcta cgcccagaca cagactttgg gggaaacatg aagtcggtcc tcacctggaa 480 gcaccggaag gagcacgcca tcccccacgt ggttctgggc cgga 524

<210> 714 <211> 2468 <212> DNA <213> Homo sapiens

<400> 714

gaategacge acgegtgege agegetgeea gegtggaagg agetgegggg egegggagga 60 ggaagtagag eccgggaccg ccaggccacc accggccgcc tcagccatgg acqcgtccct 120 ggagaagata gcagacccca cgttagctga aatgggaaaa aacttgaagg aggcagtgaa 180 gatgetggag gacagtcaga gaagaacaga agaggaaaat ggaaagaage teatateegg 240 agatattcca ggcccactcc agggcagtgg gcaagatatg gtgagcatcc tccagttagt 300 tcagaatctc atgcatggag atgaagatga ggagcccag agccccagaa tccaaaatat 360 tggagaacaa ggtcatatgg ctttgttggg acatagtctg ggagcttata tttcaactct 420 ggacaaagag aagetgagaa aacttacaac taggataett teagataeca eettatgget 480 atgeagaatt tteagatatg aaaatgggtg tgettattte caegaagagg aaagagaagg 540 acttgcaaag atatgtaggc ttgccattca ttctcgatat gaagacttcg tagtggatgg 600 cttcaatgtg ttatataaca agaagcctgt catatatctt agtgctgctg ctagacctgg 660 720 ectgggecaa tacctttgta atcagetegg cttgecette ecctgettgt geegtgtace ctgtaacact gtgtttggat cocagcatca gatggatgtt gccttcctgg agaaactgat 780 taaagatgat atagagcgag gaagactgcc cctgttgctt gtcgcaaatg caggaacggc 840 agcagtagga cacacagaca agattgggag attgaaagaa ctctgtgagc agtatggcat 900 atggetteat gtggagggtg tgaatetgge aacattgget etgggttatg teteeteate 960 agtgetgget geagecaaat gtgatageat qacqatgact cetggecegt ggetgggttt 1020 gecagetgtt cetgeggtga caetgtataa acaegatgae cetgeettga etttagttge 1080 tqqtcttaca tcaaataagc ccacaqacaa actccqtqcc ctqcctctqt qqttatcttt acaatacttq qqacttqatq qqtttqtqqa qaqqatcaaq catqcctqtc aactqaqtca acggttgcag gaaagtttga agaaagtgaa ttacatcaaa atcttggtgg aagatgagct cagctcccca gtggtggtgt tcagattttt ccaggaatta ccaggctcag atccggtgtt taaagcegte ccagtgccca acatgacace ttcaggagte ggccgggaga ggcactcgtg tgacgcgctg aatcgctggc tgqgagaaca qctgaaqcaq ctggtgcctq caagcqgcct 1440 cacagicatg gatetggaag etgagggeae gigtitgegg iteagecett igatgaeege 1500 agcaggtaaa ccaqgcttgg tqqacatccc ttqcttttqt tctggggctq ctqqqtagat 1560 tagettgece ttatgatact ccattetect agagttatta geagetettt ttggagggge 1620

attttcttt	cttttgggct	aaatttaggt	agattagcat	tcccatgtaa	cttaccagaa	1680
tcagaatgag	aattcagaag	tcacctgaat	tggccgggca	tggtggctca	cacctgtaat	1740
cccagcacct	tgggaggcca	aggcaggcag	atcatctgag	gtcaggagtt	cgagaccagc	1800
ctggccaaca	tagtgaaatc	ccgcccctac	taaaaataca	aaaaattagc	caggcaccct	1860
			ccccatctcc			1920
ggtcccactg	tgggaccaca	accaggtatg	actgtgtgag	aagcaggete	actaccaggc	1980
taccagggag	cacaggggag	caggcgccac	cttgaggcat	aaacccagag	aaacaagacc	2040
tccaagacgg	ccaggcactg	gggcacacgc	cggtaacaca	gcaccgtggg	agctgagacg	2100
gaaggatcgc	ctgagcccag	gattttgaaa	ccaccctggg	caacacagtg	agaccccgta	2160
			ggcggcatgc			2220
			cccagagagg			2280
gatcgcatca	ctgtactcca	gctggggtga	aacggcgaga	ctctacctca	aaaataaata	2340
			a a aga c cagc			2400
	ctacgcaaaa	tataaataaa	attagaaaac	aaactacaat	ctcagaaaag	2460
cactagca .						2468

<211> 924 <212> DNA <213> Homo sapiens <220> <221> misc_feature <222> (1)...(924) <223> n = a,t,c or g

<210> 715

<400> 715 tttcgtgtaa gatataactc aactttgaaa atgtcagccg ttatagttga agaaatctga 60 cccaagagac ttcgctccgc tgcaagatgg aaggaagctt aagtaagaca taaatttgta 120. atgaacttgc tcacaacatc cgccgccact gtgacttgca gtcatcatcc attaccacaa 180 aattagttgc aggatggcta ctcgtatccc tccacacatg atcatcagta tttgcctcct 240 gtgtcccaac cggcctgagt caaggttacg actcactgat taaaaagagg gactttttca 300 aatactttgc acttttgatt gtgtattatg gataccaagg aagagaagaa ggaacggaaa 360 caaagttatt ttgctcgact gaaaaagaaa aaacaagcca aacaaaatgc agagacagcc 420 tcagctgtag ctacaaggac tcatactggg aaggaagata ataatacagt agttttagag 480 ccagacaagt gcaacattgc tgtggaagag gaatatatga ctgatgagaa aaaaaagaga 540 aaaagtaatc agttaaagga gatcaggcgt acagaactaa agagatatta tagtattgat 600 gacaatcaaa acaaaacaca tgataaaaaa gagaagaaga tggtggttca gaagcccat 660 gggactatgg aatacactgc tggaaaccag gacaccctaa actccatagc actgaaattt 720 aacatcactc ccaataaatt ggtggaactg aataaacttt tcacacatac tattgttcca 780 ggccaggtcc tttttgtgcc agatgccaac tctccttcca gtaccttaag gctatcatca 840 tocagtoctg gtgctactgt etetecttca teatnagatg cagaatatgn taattggetg 900 atgctgactt agcacggaag gctt 924

<210> 716 <211> 679 <212> DNA <213> Homo sapiens

<400> 716 tttcgtgctg tggcgcgcgg ccggcagagg gaggggagag gccactgggg ccgtgttagt ctgccggtgg ggactcttgc agggccgtcc ccatgttgcg ttttccgacc tgtttcccat 120 cetteegggt ggtgggagag aagcagetee egcaggagat tatttteetg gtetggtege 180 ccaagoggga totcattgot ttggccaaca cagotggcga ggttttactt categactgg 240 caagttttca tcgagtttgg agttttccac caaatgaaaa tacaggaaag gaggtgacgt 300 gtotggcatg gagaccagat ggcaaacttt tggcctttgc tettgctgat accaagaaaa 360 ttgttttgtg tgatgtagaa aaacctgaga gcttacactc tttttctgtg gaggctccag 420 tttcctgtat gcattggatg gaagtgacag tagaaagcag tgttctcaca tcattttata 480 atgotgagga tgaatcaaat ottotottac otaaactaco tacactgoca aaaaactata 540 gcaacacctc aaaaatattt agtgaagaaa attctgatga aattattaag ctcttgggag 600 acgtcaggct taatattoto qtccttqqaq qaaqctctqq atttattqaq ctttatqctt 660 atggaatgtt taaaattgc 679

```
<211> 821
<212> DNA
<213> Homo sapiens
<220>
<221> misc feature
<222> (1) ... (821)
<223> n = a,t,c or g
```

<210> 717

<400> 717 ctttcatact gcctcctccc ttgtttttct gtctcagaga gatagtctgt cctaaatatc 60 ccatgtagcc caggccactg aattaaaacg gagcgtattc gttctctgcc ccaccccgca 120 actortgana goggogoano tonattacti gatorttata tgocccacgo gggactenta 180 ctacgtttcc cgtgaacacg tgcagtccaa accccgcccc tgatatttat ctcagtggac 240 ggtggccgga aaaggacaat ggtttccatg tcagcggata aacgctctcc cctcggctcc 300 cggacgcgac ggaggtcgta gtagtagtga gtacgtgctg aggagcaaag gagtaaccaa 360 gagatccagt gaccgacaga gcaagagcca tgccgcgccg gggcctggtg gctgggccag 420 acttggagta ttttcagcgt cactatttca cgccggcgga ggtggcccaa cataacaggc 480 ccgaagacct ctgggtatct tacctgggac gcgtgtacga cctaacgtca ttggcacagg 540 aatacaaggg gaacctgctg ctgaaaccca tcgtggaagt tgcaggccag gatatcagcc 600 actggtttga tccaaagacc agagacgtga gttatgctgg aacctgggat tgtgggtaga 660 ggaaatggag ageggggatg ggaaggaaag geggaggeta geeagageet aatggetget 720 etgacaccet egececaaac ceteetttaa agateegeaa geacgaatte caccacatgg 780 nataagggtc gtcaatgnnn nnnnaagggg natcaanccc c 821

```
<210> 718
<211> 480
<212> DNA
<213> Homo sapiens
```

<400> 718 ccggattccg ggtcgacgat ttcgtgcggc ttttgtgttg ggcagcgcga atgtggcgag 60

ctcggtgcgt	ctccgctgct	ccttcccctt	atccctggga	ggtccaagtg	gtcccgcggc	120
agcttctgtt	gctctgggac	ctgcaggtcc	cggaaggtcc	ttagggagga	ccccagacac	180
cggagactgg	gaaatggatt	cagtgtcatt	tgaagatgtg	gctgtggcct	ttactcagga	240
ggagtgggct	ttgctggatc	cttctcaaaa	gaatctctac	agagatgtga	tgcaagaaat	300
cttcaggaac	ctggcttctg	taggaaacaa	atcagaagac	cagaatatcc	aagatgactt	360
caaaaatcct	gggagaaatc	taagcagtca	tgtggtagag	agactgtttg	aaattaaaga	420
aggcagtcaa	tatggagaaa	ccttcagcca	ggattcaaat	ttgaatctga	ataagatagt	480

<210> 719 <211> 467

<212> DNA

<213> Homo sapiens

<400> 719

cgtaatctct	cagcctttct	gtgtctcctt	tcctccgcct	cagtttgggg	cgggtcgggg	60
gaatggctga	ggagatggag	tegtegeteg	aggcaagctt	ttcgtccagc	ggggcagtgt	120
caggggcctc	agggtttttg	cctcctgccc	gctcccgcat	cttcaagata	atcgtgatcg	180
gcgactccaa	tgtgggcaag	acatgcctga	cctaccgctt	ctgcgctggc	cgcttccccg	240
accgcaccga	ggccacgata	ggggtggatt	tccgagaacg	agcggtggag	attgatgggg	300
agcgcatcaa	gatccagcta	tgggacacag	caggacaaga	acgattcaga	aagagcatgg	360
ttcagcacta	ctacagaaat	gtacatgctg	ttgtcttcgt	gtatgatatg	accaacatgg	420
ctagttttca	tagcctacca	tcttggatag	aagaatgcaa	acaacat		467

<210> 720 <211> 490

<212> DNA

<213> Homo sapiens

<400> 720

tggcaccgat	ccgagattcc	cggatcgacg	atttcgtcgg	agccccgagg	ggccggagct	60
cctggcggtg	ccggatcctg	acggcggcct	tecceegggt	cgattgtgat	catggctgct	120
gagtctgatg	ttctgcattt	ccagtttgaa	cagcaaggag	atgtggtctt	gcagaaaatg	180
aatcttttga	gacagcagaa	tttattttgt	gatgtatcaa	tttacattaa	tgacactgag	240
ttccaggggc	acaaggtgat	tttggctgct	tgctccactt	ttatgagaga	tcagttttta	300
ctcacacagt	caaaacatgt	cagaatcacc	atcttacaga	gtgcagaagt	tggcagaaaa	360
ttgttactgt	cttgctatac	tggagcactt	gaagttaaaa	ggaaagagct	tttgaaatac	420
ttgactgctg	ccagttacct	tcagatggtt	cacattgcgg	aaaagcgcac	agaagetttt	480
gtcaagttct					_	490

<210> 721 <211> 706

<212> DNA

<213> Homo sapiens

agtor tttgg acaga tggcr ccaag acctg tgctg ctgaa	tgegge gaaage acagge tettat ggaegt ggecag gecate ggaeae categg	ggtgtggage tggaatcagg agcagttggee tggeegttg etgeeteetg geecaggtee geageagag tgcageegge tgceceaggae ggteaacgae gggeaggaaa	acaggcagca atagacacca ccacataggc caggtcctgg tggcaagtgc tgggagcatg gactcctgcc agcccctctg agcgtccacg togtcttccc atttccctgg gttcttgctg	aggcaggacc catgetecat gagcgetgge cecgteetee getecageee agettgteet eccageetet agetggataa agetgggaga etgtggcae	cccagagatg gccgccccg tgtgctgtgg cacctggggc agcttgggag tgtggaaagc gggccaggcc ctactggtcc ggctcttctg	ctgaagcete egecegtggg ctgggeteeg caggtgeage ecectggaag atcececagg tggetgeage cteacaggge cagaagetge	60 120 240 300 360 420 480 540 600 660
	<210> <211> <212> <213>	677	ns				
gegte tagte gggate ggate ctcct accce acce gtgg	aaggcc ggaaga ggcgtc gcgctg gcagcg cgcttt tccatt ggcgct agtttg cccaga	cegegtgete cegtgggett cetegecege cecaecetgg gegtcaatge getgetgggt ctctgaagaa acaeggtgte tggagttcae	ttcccaaggg cttgggtttg ctcccttct agaggggcg tcccttcctc gagcagctgg caccagcgct gaagaagatg cagcaagagt cctgtccgtg gcgggaggtc	ttgcetcegg gggcegegge gggtetggat gggceattgg aggcegaca gggttggtgg ccactgceat tgcetggttg gagagcactg	cegeteatta teegettaag ttteagaact agaeteegtt gtgttegtee gggtagettt ttgggttgaa eceggatea gecaggaaag	actcaggatg tgaaggcctg gccactcttc gctttttaat catcoggaga tcoctctttg actgaaacgc actgcttaat cctcgaggcc	60 120 180 240 300 420 480 540 600 677
	<210> <211> <212> <213>	600	າຣ				
		agcaccttcg	tegecattgg				60 120

180

240

300

ctaccagcaa ttttgagaac ttgcaaaaac agcttgcaag gaaaatgaag cttcctattt

tcatagcaga tgcattcaca gcaagagcat ttcgtgggaa tcctgctgct gtttgcctcc

tagaaaatga attggatgaa gacatgcatc agaaaattgc aagggagatg aacctctctg

WO 01/53455	;				PCT/US00	/35017
gactgagatg ctgcagctgt tgagtggaga	tatecgaaaa gtttacacca getgtttcac actaagggcc cccccaggac	gcgagtgagg aaaataaaaa agacgagcag	tcccactctg acatgaatag aggacggcat	tggccatgcc cacgctcacg cgtcctggac	accetggett tttgtcacte ttgcctcttt	360 420 480 540 600
<210> <211> <212> <213>	530	ns				
ccggaagttg ctaggaaaca aatgaatata tatgccacta gcggcttttc ctggagcaaa cagagattca	724 cgttccggaa cacgctgagc agcaattttg gcctgactgg ttaaagaaga ctcggcgtct tagatgaaaa ccaagatcac ttgttccttt	egeggacace tteetteaaa actgtgtaat gaaaggacag etgggaacgg tetgatttac ecaataceta	atgcagtcgg ataagaacca cggtcatcct tgctacttgt gtccggctta tggccccgtt attcgaatta	atgatgttat agactcagag gtcccctggc atatgaaggt gtaaaaacta tcattcgaca gaaaacttac	ctgggataca cttctgccga aaatagtcag tatagaacga tgagaaagca caaatgtaag	60 120 180 240 300 360 420 480 530
<210> <211> <212> <213>	428	ıs				
gtgggccgag tgcggcctcc cgcgaagcgg caccgttaag ggtcagagag	725 cggggactcg gcggcccag tcgcaaaaca acattggtgg ggcgagtcct agttgttgag aagggccctg	tagccgcggg aggtgagtga atcccagcgc gatctgaaga taaaagttgg	ccttgggccc ctcgcgggag tgtgtgtatt tccgagaact tgaagcgaag	gtaateteae caatgggage geggggaggg tecaaaagaa agggttette	gacctccgcc tgtttcaggc acacctgtgg actgacgttg agacaggaaa	60 120 180 240 300 360 420

<210> 726 <211> 859 <212> DNA <213> Homo sapiens <220> <221> misc_feature 428

<222>	(1)		(859)	
<223>	n =	a,	t,c	or	c

	tectetggag					60
	agtgccagat					120
agcatcaagg	tgttgctcca	gteggetetg	agectgggcc	gcagcctgga	tgcggaccat	180
gececettge	agcagttctt	tgtagtgatg	gagcactgcc	tcaaacatgg	gctgaaagtt	240
aagaagagtt	ttattggcca	aaataaatca	ttctttggtc	ctttggagct	ggtggagaaa	300
ctttgtccag	aagcatcaga	tatagcgact	agtgtcagaa	atcttccaga	attaaagaca	360
gctgtgggaa	gaggccgagc	gtggctttat	cttgcactca	tgcaaaagaa	actggcagat	420
tatctgaaag	tgcttataga	caataaacat	ctcttaagcg	agttctatga	gcctgaggct	480
ttaatgatgg	aggaagaagg	gatggtgatt	gttggtctgc	tggtgggact	caatgttctc	540
gatgccaatc	tctggcttga	aaggagaaga	cttggattct	caggttggag	taatagattt	600
ttccctctac	cttaaggatg	tgcaggatct	tgatggtggc	aaggagcatg	aaagaattac	660
tgatgtcctt	gatcaaaaaa	attatgtgga	agaacttaac	cggcacttga	gctgcacagt	720
tggggatctt	caaaccaaga	tagatggctt	ggaaaagact	aactcaaagc	ttcaagaang	780
agtttcagct	gcaacagacc	gaatttgctc	acttcaagaa	gaacagcagc	agttaagaga	840
acaaaatgaa	ttaattcga					859

<210> 727 <211> 450 <212> DNA <213> Homo sapiens

<400> 727

tttcgtcagt gtggggcctg gaccgctggg taggcgcgtc cagcggcctg agcaggggag 60 ggtaatgagg ctgttacgcg ccttctccgc atcttggcgg gagcctgacg ccccgcttct 120 tecetaaegg ggtgttecac eggegeetge egaggeetag geeteegeag eegeeteeg 180 totoctcago cocgacgotg cgcccgottt gtgctcattt ttctctgggg aaactgagge 240 tecgagtgeg aaagteagee gaggtegeee egeecaggae agagaaggge tgggggtegg 300 ctgagccgcg gcattcccgg gccccgctag ggctgcaggg tctcaggatg gcagcctcgg 360 cgcaggtgtc tgtgaccttt gaggatgtgg ctgtgacatt cacccaggag gagtggggac 420 agttggatgc agcccagaga accttgtatc 450

<210> 728 <211> 439 <212> DNA <213> Homo sapiens

<400> 728
thtcgtgggt cgcthtcct accttcctcg ctgogoggg ggcggttggt aaccggtcag
accagocoga gagggacctg gtgctgtac ccaggcttct gtcgctctgt cgcctggct
120
atgccctgct gtagtcacag gagctttag aggacccg gtacatctga aggcgggag
180

WO 01/53455 PCT/US00/3501						35017
ctggatattt acctctatag	tggtctttga cccagaagaa gaaaaaatg ggagtctcat ttacccagg	tctcttcagg gagtgaccag	gaagtgatgc aacattgaat	tggaaacttt atgagtacca	caggaacctg aaaccccaga	240 300 360 420 439
<210> <211> <212> <213>	236	າຣ				
agccgtgtgt gctgcctttg	729 gaccgacgtt actgcgtggt ccgtcaccat tggattacca	cagcactgcc gccacagaat	cgacagtcct gaatatattg	agctaaactt aattacaccg	cgccaactcc taaacgctat	60 120 180 236
<210> <211> <212> <213>	807	ns				
<400>	730					
	agttgacgct					60
	tgccaaacaa					120
	atcctctgta					180
	tctggtggtg					240 300
	tataggagat aaataaggtg					360
	ggatatcatt					420
	gaaacccatc					480
	atgtccacac					540
	tgattttgag					600
	ccgtgccaga					660
	tggtcatagt					720
tggcccttcc	agaagaatac	agagattatt				780
gacatacttc	caacaatatt	tacgagg	_			807

<210> 731 <211> 944

<212> DNA

<213> Homo sapiens

<400> 731 tttcgtgtga ggggaggggc gcgtgctaaa ccagaagagg taaaccaatg cagtgagaga 60 qaqqtqqttq tqqqctccac aqcttctgat ttqqaqqaag ctgcgagacc gagagcctag 120 gagcacette caegeccagg getgtggtac aggttggtgg gggaggggcg ccaegeggtg 180 240 tttqqcaqqa aqqqqaqqcc tctctactqa ccqqaaqctq cqctaqaaaa aqaaqqaqqa gactucggcg cagcagcgac tagtgggagt ccgatgtggg agaggggctg cggccaccgc 300 caccgeegee gecaccagga aggeggagga egeaggagee aagagcaagg gaegeegeea 360 eggteatett egeetgeeee geegeeetet tagagaeaet cattgeetat ggateateet 420 cteccagett tigcaagcac egggetgete gecegetgat tittectecte cataggetea 480 ctgcqqaqqc aacqqcqaqq tqtccqattt qtqcacttqa qqccqcaat ccqqqacqqt 540 ggggaatetg egetteetgg eegggeatga agacceegtt tggaaaggea getgeaggge 600 aggggtggag gaggggggt ggcacggga gtgtgtctgt taccatgata aagaggaagg 660 ctgcacacaa gaagcatagg agccgaccca ceteccagec tegggggaac atcgtggget 720 gcataattca gcacggatgg aaagatggag atgaacctct aacacagtgg aaaggaaccg 780 ttctggatca gctcctttga ataaacctgc ccaccaccaa gaacccatac atgactttct 840 tttcattqta tcaaacqaat qtqtccaccq qtgtgagcac cagcaactca cttcttcctc 900 agacatetet aaagetggae agaatatgag ggacaatate gttt 944

<210> 732 <211> 761

<212> DNA

<213> Homo sapiens

<400> 732 cogagaette gotgtogeee ttgaggeatt teaatgggeg agggeeggeg actgtogate tagaactaga cacactagaa aaqaaqaat taatacaaqa caacactcc ctaaqcaca 120 gcaccgagga cgaggaggag gggggagcc tgggcgacgg cagcggggg gaaggcggca 180 getgeageag cageaggegg tegggeggeg atggegggga egaagtggag ggeageggtg 240 toggagetog cgaaggagag actotecage actteceget cgcgcggccc aagtetetaa 300 tgcagaaget ccaatgetec ttccagacet cetggeteaa ggactttece tggetgeget 360 attecaaqqa tactqqtett atgtettgeg getgqtgeca aaagacccet geagatgqgg 420 gaagegtgga cettececca gtggggcatg atgagettte gegagggace egcaactaca 480 agaaaaccct cctcctgagg caccacgtct ctaccgagca caaactccac gaagccaacg 540 cccaggagtc agaaatacca tcagaggagg ggtactgtga ctttaatagt aggccaaatg 600 660 agaactetta ttgctatcaa ettetgegae aactaaatga acagagaaag aaaggtatte 720 titgtgatgt cagcattgtg gtaagcggaa aaatcttcaa agctcataag aacatcctgg ttgcaggcag ccgtttcttt aagactttat attgcttttc a 761

<210> 733 <211> 523 <212> DNA

<213> Homo sapiens

<220>

<221> misc_feature <222> (1)...(523)

<223> n = a,t,c or g

<400> 733 aattocoggg togacgattt cgtgcgggag cagagatctg cgggcgnttg cagcttgcgg 60 tagggaggeg tggtggtctg aagcctccga gcagccgcgg ccatggcgga tgtaaccgcc 120 cgtagtctqc aatacgagta caaqqcqaac tcqaatcttq tqctccaaqc tqaccqttct 180 ctcattgacc ggacccgccg ggatgaaccc acaggagagg tgctgtccct tgttgggaag 240 ctggagggca cccgtatggg agacaaggct caacggacca aaccgcagat gcaggaggaa 300 agaagagcca agcgaagaaa gcgtgatgag gaccggcatg acatcaacaa qatqaaqqqt 360 tatactotgo tgtoggaggg cattgatgag atggtgggca toatotacaa gcocaaaact 420 aaaqaqactc gggagaccta tgaggtgcta ctcagcttca tccaggctgc tcttggggac 480 cagccacgtg atatcctttg tggggcagct gatgaagttc tag 523

<210> 734 <211> 1341 <212> DNA <213> Homo sapiens

<400> 734

tttttttttt ttaaccagat tatttcactt attatttatt ttatcttcca atttcctctt 60 gecagaetee catecaaaga gteataagea geettettee cacettetta catgaaatae 120 atccccacct gaacaaaqqc acacqqacaq qaqqaaqqqq aataqqactt cqcaaaacto 180 gacacggcat cgcttcagat cttggactct gaggttccgt tgttactggt ttcacagtta 240 caggettegg atggtetgea egtgetgttt caagactaat ggtagtetet attgettetg 300 ttatgtoott atccaacetg ttcagcetgt cetetgacte aaatatggag taatcaatgg 360 tgaaatctgc actaaagtca tcataactgg gggtgactgt ataataatag accacctgat 420 aatattoato ototoooagt otttottoat cotoatatto ttgtoocagg ataagtggca 480 cagcaaagat ggctacaaag aggacatcca ttctggattc tgcactattg catcaccacc 540 cagagitiges titletetetg aggetteate agtetetiti egicacagig gaaatgitet 600 gaggaagggg tgagcatttt totagactga aaagaatccc tttcttctgt ctgtctggag 660 cagccatggg ggctgcggtg tttttcggct gcactttcgt cgcgttcggc ccggccttcg 720 egettttett gateactgtg getggggace egettegegt tateatectg gtegeagggt 780 gagtagaggg cccgggagac gcgggagagc gtcgaagaga gaggtgcgga aggggctgga 840 ggaactgggg caagcctggg agcctgaatt ggggacgata agtcggaggt gaagtttggg 900 eggaggtgag gggttgggte tgggagattt gteettteee geagttggtt tecacettee 960 aaggatotca cagattocto otatattoot occagogacg toagagaagg cocaaggoog 1020 agactogtga gggggctgtg ctgacctagg caggccgagt caggtgcctt aggggaggat 1080 ccaggaacgg atacctogcc cttccgtgct cgcacactct ggctgtcatc gctctqaaqa 1140 ctctttaatt agatttetee cettteeagt gegtteactt ttetacagat gagteteetg 1200 gtggagacag ttaccctacc tggtccatgt ctccctaacc atccggaagg ctaacttcca 1260 cttttcaagc agctttggct ggtttccctc cttgatttct ctggctccca ctactattgc 1320 ttgtctcact gcccctgtat t 1341

<210> 735

<211> 703

<212> DNA

<213> Homo sapiens

<400> 735 tttegtgaga ggeceaggtg aggageaage geeegegtte eggaageeeg eteeegggge 60 catgggggca caggtgaggc tgecgcecgg agagecetge egagaaggat atgtgetgte 120 totggtotgt ccaaactoot occaggottg gtgtgagatc acaaatgtgt cacagetgot 180 qqcttctcct qtqctctaca cggacctgaa ttacagcata aacaacttqa qcatttcaqc 240 aaatgtagaa aacaaataca gtotttatgt gggottggta otggoagtaa gotcaagtat 300 ttttattggc tccagcttca tactgaaaaa gaagggcctc ttgcaactgg ccagcaaggg 360 ctttactaga getggacaag gtggacatte ttacetgaag gaatggetet ggtgggtagg 420 attgctgtca atactgtcct ggaatgcaag ggaaaaagtt gacctttgaa atattacatt 480 ttaaccacag acttettgta ttttetteac cataacaata gagaaaagta ettttette 540 atattttccc acctcctaat ttgaacaact attgtagctg catattttct caagaaagag 600 tacagtttcc ttgccaggac aacacggata agtgaaaggc ttctqtqqct gcttqqtact 660 gaacaaatgg agaagaaatg aagggtgtca gcactctcct tee 703 <210> 736 <211> 401 <212> DNA <213> Homo sapiens <400> 736 tttegtetgg egtggaegtt tgtggtgggg egtgttggte egegetetea gaactgtget 60 gggaaggatg gtagggcgac tggggctcac ctccqcaccq ttqtaggacc cqqqqtaqqq 120 ttttgagccc gtgggagctg ccccacgcqg cctcqtcctg ccaacqgtcg gatqqcqqaq 180 acgaaggacg cagegcagat gttqqtqacc ttcaaqqatq tqqctqtqac ctttacccqq 240 gaggagtgga gacagctgga cctggcccag aggaccctgt accgagaggt gatgctggag 300 acctgtgggc ttctggtttc actagggcat cgggttccca aaccagagtt ggtccacctg 360 ctaaagcatg ggcaggagct gtggatagtg aagagaggcc t 401 <210> 737 <211> 933 <212> DNA <213> Homo sapiens <400> 737 ageggeeget egecegtgtt gtgtgteece ggtgteaceg agegtgttgt gtgteegtge 60 ggegeggege tegtgtgget eeetegegee caccaegetg geccceggge ceeggetege 120 cetteccagg egeeggetge ageagagttt eagaacaage tteetggaac ceatgaccea 180 tgaagtettg tegacattta tacegtetga gggtagcage tegaaagtag aagaaagtgt 240 tgccagggac ggcagtatet etttgtgtga ecetqqcqgc ttatgggacq ttggettcaq 300 acetttgtga tacaccatgc tgcgtgggac gatgacggcg tggagaggaa tgaggcetga 360 ggtcacactg gcttgcctcc tcctagccac agcaggctgc tttgctgact tgaacgaggt 420

480

540

600 660

720

780

coctcaggte accgtccage etgegtccae egtecagaag eceggaggea etgtgatett

gggctgcgtg gtggaacctc caaggatgaa tgtaacctgg cgcctgaatg gaaaggagct

gaatggctcg gatgatgctc tgggtgtcct catcacccac gggaccctcg tcatcactgc

cettaacaac cacactgtgg gaeggtacca qtqtgtqqcc eggatgcctg egggggetgt ggccagcgtg ccagccactg tgacactage caqtqaqtct getcetttge etcectgcca

tggtgeggte cetecteate teteccacce tgaageeece accatteatg etgeetettg

ttagtaat gc	gggacccctt	cagaaatgtc gtgcccttgg ggg		840 900 933

<210> 738 <211> 420 <212> DNA <213> Homo sapiens

<400> 738

ctggggtegg eggagaeage tggtgtetga ageegetege geceagggtg accetgtttg cagcacgatg tetgaagaag aggeggetea gateeccaga tecagtgtgt gggagcagga ccagcagaac gtggtgcagc gtgtggtggc tctgcccctg gtcagggcca cgtgcaccgc ggtctgcgat gtttacagtg cagccaagga caggcacccg ctqctqqqct ccqcctqccq

cotggctgag aactgcgtgt gcggcctgac cacccgtgcc ctggaccacg cccaqccqct gotogagoac otgoaqocco aqotqqocac tatqaacago eteqootqoa qqqqoctqqa Caagetggaa gagaagette cettteteea geaacetteg gagacggtgg tgaceteage

60

120

180

240

300

360

420

60

120

1248

<210> 739 <211> 1248 <212> DNA

<213> Homo sapiens

<400> 739 tttcgtagcg agtaaagaag cagatttgct ctccctcccg cttcctccct cccatcttcc cacceggget gtgcccagge cacagageag etgcaggeet tgggaqaqaqa eccacacage ctcctgtagg tggcaacagt gccacctgtt tgactcatag ggctgaaccg aggactgaaa

180 aagggaggag gcagaccact cggagaggag ctgggaagca gtgcagagag gagagcggag 240 oggagetgec getgageaaa ggeetteace atggeegagt ceceeggetg etgeteegte 300 tgggcccgct gcctccactg cctgtatagc tgccactgga ggaaatgccc cagagagagg 360 atgcaaacca gcaagtgcga ctgtatctgg tttggcctgc tcttcctcac cttcctcctt 420 tecetgaget ggetgtacat egggetegte etteteaatg acetgcacaa etteaatgaa 480 tteetettee geegetgggg acaetggatg gaetggteee tggcatteet getggteate 540 tetetactgg gcacatatgc atcettgeta ttggtcetgg ccetgeteet geggetttgt 600 agacagocco tgcatotgca cagootocac aaqqtqctqc tqctcctcat tatqctqctt 660 gtggcggctg gccttgtggg actggacatc caatggcagc aggagaggca tagcttgcgt 720 gtgtcactgc agactgcagg tagctctgaa ctccagcagt caggccctaa gaggaaagcg 780 gggaggggca ctggagaaga gcccacctca ccagctcttg tccacaggcc acagccccat 840 teetteatat tggageagee getggaattg eceteetgge etggeetgtg getgatacet 900 totaccgtat ccaccgaaga gagcccaaga ttotgctact gctcctattt tttggagttg 960 teetggteat etacttggee eccetatgea teteeteace etgeateatg gaacecagag 1020 acttaccacc caagectggg ctggtgggac accgaggggc ccccatgctg gctcccgaga 1080 acaccetgat gteettgegg aagacagetg aatgeggage tactgtgttt gagactgatg 1140

tgatggteag etecgatggg gteccettee teatgeatga tgageacete ageaggacea 1200 cgaatgtagc ctctgtattc ccaacccgaa tcacagccca cagcagtg

<210> 740 <211> 185 <212>Amino acid <213> Homo sapiens

<400> 740 Phe Val Gly Arg Leu Leu Arg Leu Gly Glu Ala Leu Arg Leu Arg Pro 10 Asp Pro Ser Gly Gly Cys Arg Leu Gln Pro Ala Leu Val Gly Glu Thr 20 25 Glu Met Ser Glu Lys Glu Asn Asn Phe Pro Pro Leu Pro Lys Phe Ile 40 4.5 Pro Val Lys Pro Cys Phe Tyr Gln Asn Phe Ser Asp Glu Ile Pro Val 55 Glu His Gln Val Leu Val Lys Arg Ile Tyr Arg Leu Trp Met Phe Tyr 70 75 Cys Ala Thr Leu Gly Val Asn Leu Ile Ala Cys Leu Ala Trp Trp Ile 85 90 Gly Gly Gly Ser Gly Thr Asn Phe Gly Leu Ala Phe Val Trp Leu Leu 100 105 110 Leu Phe Thr Pro Cys Gly Tyr Val Cys Trp Phe Arg Pro Val Tyr Lys 120 Ala Phe Arg Ala Asp Ser Ser Phe Asn Phe Met Ala Phe Phe Phe Ile 135 Phe Arg Ser Pro Val Cys Pro Asp Arg His Pro Gly Asp Trp Leu Leu 150 155 Arg Leu Gly Arg Val Arg Leu Ala Val Gly Asn Trp Ile Leu Pro Val 170 165 Gln Pro Gly Arg Cys Arg Gly His Ala 180

<210> 741 <211> 177 <212>Amino acid <213> Homo sapiens

<400> 741 Phe Leu Gly Ala Gly Ala Asp Ile Phe Cys Ala Tyr Leu Arg Met Ser 10 Ser Lys Gln Ala Thr Ser Pro Phe Ala Cys Ala Ala Asp Gly Glu Asp 25 Ala Met Thr Gln Asp Leu Thr Ser Arg Glu Lys Glu Glu Gly Ser Asp 40 Gln His Val Ala Ser His Leu Pro Leu His Pro Ile Met His Asn Lys 55 Pro His Ser Glu Glu Leu Pro Thr Leu Val Ser Thr Ile Gln Gln Asp 70 Ala Asp Trp Asp Ser Val Leu Ser Ser Gln Gln Arg Met Glu Ser Glu 90 Asn Asn Lys Leu Cys Ser Leu Tyr Ser Phe Arg Asn Thr Ser Thr Ser 105 Pro His Lys Pro Asp Glu Gly Ser Arg Asp Arg Glu Ile Met Thr Ser 120 125

177

<210> 742

<211> 434 <212>Amino acid <213> Homo sapiens

340

<400> 742 Glu Gly Tyr Leu Thr Gly Arg Pro Thr Arg Pro Val Ala Val Arg Gly 10 Lys Ser Thr Ala Asp Leu Arg Met Met Gly Arg Ser Pro Gly Phe Ala 25 Met Gln His Ile Val Gly Val Pro His Val Leu Val Arg Arg Gly Leu 40 Leu Gly Arg Asp Leu Phe Met Thr Arg Thr Leu Cys Ser Pro Gly Pro 55 Ser Gln Pro Gly Glu Lys Arg Pro Glu Glu Val Ala Leu Gly Leu His 70 75 His Arg Leu Pro Ala Leu Gly Arg Ala Leu Gly His Ser Ile Gln Gln 85 90 Arg Ala Thr Ser Thr Ala Lys Thr Trp Trp Asp Arg Tyr Glu Glu Phe 105 Val Gly Leu Asn Glu Val Arg Glu Ala Gln Gly Lys Val Thr Glu Ala 120 Glu Lys Val Phe Met Val Ala Arg Gly Leu Val Arg Glu Ala Arg Glu 1.35 140 Asp Leu Glu Val His Gln Ala Lys Leu Lys Glu Val Arg Asp Arg Leu 150 155 Asp Arg Val Ser Arg Glu Asp Ser Gln Tyr Leu Glu Leu Ala Thr Leu 165 170 Glu His Arg Met Leu Gln Glu Glu Lys Arg Leu Arg Thr Ala Tyr Leu 180 1.85 Arg Ala Glu Asp Ser Glu Arg Glu Lys Phe Ser Leu Phe Ser Ala Ala 200 205 Val Arg Glu Ser His Glu Lys Glu Arg Thr Arg Ala Glu Arg Thr Lys 215 220 Asn Trp Ser Leu Ile Gly Ser Val Leu Gly Ala Leu Ile Gly Val Ala 230 235 Gly Ser Thr Tyr Val Asn Arg Val Arg Leu Gln Glu Leu Lys Ala Leu 250 Leu Leu Glu Ala Gln Lys Gly Pro Val Ser Leu Gln Glu Ala Ile Arg 265 Glu Gln Ala Ser Ser Tyr Ser Arg Gln Gln Arg Asp Leu His Asn Leu 280 Met Val Asp Leu Arg Gly Leu Val His Ala Ala Gly Pro Gly Gln Asp 295 300 Ser Gly Ser Gln Ala Gly Ser Pro Pro Thr Arg Asp Arg Asp Val Asp 310 315 Val Leu Ser Ala Ala Leu Lys Glu Gln Leu Ser His Ser Arg Gln Val 325 330 335 His Ser Cys Leu Glu Gly Leu Arg Glu Gln Leu Asp Gly Leu Glu Lys

345

Thr Cys Ser Gln Met Ala Gly Val Val Gln Leu Val Lys Ser Ala Ala 355

His Pro Gly Leu Val Glu Pro Ala Asp Gly Ala Met Pro Ser Phe Leu 370 300

Leu Glu Gln Gly Ser Met Ile Leu Ala Leu Ser Asp Thr Glu Gln Arg 385

390 395 400

Leu Glu Ala Gln Val Asn Arg Asn Thr Ile Tyr Ser Thr Leu Val Thr 405

Cys Val Thr Phe Val Ala Thr Leu Pro Val Leu Tyr Met Leu Phe Lys 420

Ala Ser 420

Ala Ser 434

<210> 743 <211> 211 <212>Amino acid <213> Homo sapiens

<400> 743 Asn Leu Pro Pro Leu Thr Pro Gln Pro Glv Pro Arg Leu Ala Glv Ser 5 10 Gly Pro Ser His Trp Phe Ser Pro Leu Ser Leu Pro Val Ala Ser Lys 20 25 Ala Pro Gly Thr Met Ala Gln Ala Leu Gly Glu Asp Leu Val Gln Pro 40 Pro Glu Leu Gln Asp Asp Ser Ser Ser Leu Gly Ser Asp Ser Glu Leu 55 60 Ser Gly Pro Gly Pro Tyr Arg Gln Ala Asp Arg Tyr Gly Phe Ile Gly 70 75 Gly Ser Ser Ala Glu Pro Gly Pro Gly His Pro Pro Ala Asp Leu Ile 90 85 Arg Gln Arg Glu Met Lys Trp Val Glu Met Thr Ser His Trp Glu Lys 105 Thr Met Ser Arg Arg Tyr Lys Lys Val Lys Met Gln Cys Arg Lys Gly 120 125 Ile Pro Ser Ala Leu Arg Ala Arg Cys Trp Pro Leu Leu Cys Gly Ala 135 140 His Val Cys Gln Lys Asn Ser Pro Gly Thr Tyr Gln Glu Leu Ala Glu 150 155 Ala Pro Gly Asp Pro Gln Trp Met Glu Thr Ile Gly Arg Asp Leu His 165 170 Arg Gln Phe Pro Leu His Glu Met Phe Val Ser Pro Gln Gly His Gly 180 185 190 Gln Gln Gly Leu Leu Gln Val Leu Lys Ala Tyr Thr Leu Tyr Arg Pro 195 200 Glu Gln Glv 210 211

408

<210> 744 <211> 55 <212>Amino acid <213> Homo sapiens

Leu Arg Gly Met Ala Ala Ala Ala Ala Gly Pro Ala Ala Ser Gln Arg

1 5 10 15

Phe Phe Gln Ser Phe Ser Asp Ala Leu Ile Asp Gln Asp Pro Gln Ala
20 25 30

Ala Leu Glu Val Gly Glu Pro Phe Leu Leu Pro Pro Leu Pro Ala Asp
Pro Pro Pro Ser Ser Thr Ala

<210> 745 <211> 182 <212>Amino acid <213> Homo sapiens

<400> 745 Trp Ala Cys Phe Arg Ser Ala His Cys Ser Arg His Leu Arg Asn Arg 10 Ile Phe Met Tyr Leu Tyr Trp Asp Lys Thr Arg Ser Pro Val Cys Lys 25 Gly Pro Ala Leu Arg Glu Glu Arg Pro Gln Pro Arg Leu Lys Leu Glu 40 Asp Tyr Lys Asp Arg Leu Lys Ser Gly Glu His Leu Asn Pro Asp Gln 55 Leu Glu Ala Val Glu Lys Tyr Glu Glu Val Leu His Asn Leu Glu Phe 70 Ala Lys Glu Leu Gln Lys Thr Phe Ser Gly Leu Ser Leu Asp Leu Leu 90 Lys Ala Gln Lys Lys Ala Gln Arg Arg Glu His Met Leu Lys Leu Glu 105 Ala Glu Lys Lys Leu Arg Thr Ile Leu Gln Val Gln Tyr Val Leu 120 Gln Asn Leu Thr Gln Glu His Val Gln Lys Asp Phe Lys Gly Gly Leu 135 Asn Gly Ala Val Tyr Leu Pro Ser Lys Glu Leu Asp Tyr Leu Ile Lys 150 155 Phe Ser Lys Leu Thr Cys Pro Glu Arg Asn Glu Ser Leu Arg Gln Thr 165 170 Leu Glu Gly Ser Thr Val 180 182

<210> 746 <211> 136 <212>Amino acid <213> Homo sapiens <220> <221> misc feature

<222> (1)...(136) <223> X = any amino acid or stop code

<400> 746 Xaa Ala Gly Val Gln Met Lys Leu Glu Phe Leu Gln Arg Lys Phe Trp 1 5 10 15 Ala Ala Thr Arg Gln Cys Ser Thr Val Asp Gly Pro Cys Thr Gln Ser

25 Cys Glu Asp Ser Asp Leu Asp Cys Phe Val Ile Asp Asn Asn Gly Phe 40 Ile Leu Ile Ser Lys Arg Ser Arg Glu Thr Gly Arg Phe Leu Gly Glu 55 60 Val Asp Gly Ala Val Leu Thr Gln Leu Leu Ser Met Gly Val Phe Ser 70 75 Gln Val Thr Met Tyr Asp Tyr Gln Ala Met Cys Lys Pro Ser Ser His 85 90 His His Ser Ala Ala Gln Pro Leu Val Ser Pro Ile Ser Ala Phe Leu 100 105 Thr Ala Thr Arg Trp Leu Leu Gln Glu Leu Val Leu Phe Leu Leu Glu 115 120 Trp Ser Val Trp Glv Ser Xaa * 130 135

<210> 747 <211> 156 <212>Amino acid <213> Homo sapiens

<400> 747 Cys Arg Gly Arg Leu Ala Gln Leu Glu Glu Ala Ala Val Ala Ala Thr - 5 10 Met Ser Ala Gly Asp Ala Val Cys Thr Gly Trp Leu Val Lys Ser Pro 20 25 Pro Glu Arg Lys Leu Gln Arg Tyr Ala Trp Arg Lys Arg Trp Phe Val 35 40 Leu Arg Arg Gly Arg Met Ser Gly Asn Pro Asp Val Leu Glu Tyr Tyr 55 Arg Asn Lys His Ser Ser Lys Pro Ile Arg Val Ile Asp Leu Ser Glu 70 Cys Ala Val Trp Lys His Val Gly Pro Ser Phe Val Arg Lys Glu Phe 85 Gln Asn Asn Phe Val Phe Ile Val Lys Thr Thr Ser Arg Thr Phe Tyr 105 Leu Val Ala Lys Thr Glu Gln Glu Met Gln Val Trp Val His Ser Ile 120 125 Ser Gln Val Cys Asn Leu Gly His Leu Glu Asp Gly Ala Ala Asp Ser 130 135 140 140 Met Glu Ser Leu Ser Tyr Thr Arg Ser Tyr Leu Gln 155 156

<210> 748 <211> 55 <212>Amino acid <213> Homo sapiens

 $^{\rm c400}$ 748 Ile Pro Ala Val Pro Leu Thr Ser Cys Val Thr Val Gly Ser Tyr Ser 1 10 15 Leu Ser Val Arg Asp Tyr Asp Pro Arg Gln Gly Asp Thr Val Lys His 20 25 30 Tyr Lys Ile Arg Thr Leu Asp Lys Arg Gly Phe Tyr Ile Ser Pro Arg

35 40 45
Ser Thr Phe Ser Thr Leu Gln
50 55

<210> 749
<211> 381
<212>Amino acid
<213> Homo sapiens

<400> 749 Lys Asp Ser Val Leu Asn Ile Ala Arg Gly Lys Lys Tyr Gly Glu Lys 5 1.0 Thr Lys Arg Val Ser Ser Arg Lys Lys Pro Ala Leu Lys Cys Thr Ser 20 25 Gln Lys Gln Pro Ala Leu Lys Ala Ile Cys Asp Lys Glu Asp Ser Val 40 Pro Asn Thr Ala Thr Glu Lys Lys Asp Glu Gln Ile Ser Gly Thr Val 55 Ser Ser Gln Lys Gln Pro Ala Leu Lys Ala Thr Ser Asp Lys Lys Asp 70 75 Ser Val Ser Asn Ile Pro Thr Glu Ile Lys Asp Gly Gln Gln Ser Gly 85 90 Thr Val Ser Ser Gln Lys Gln Pro Ala Trp Lys Ala Thr Ser Val Lys 100 105 Lys Asp Ser Val Ser Asn Ile Ala Thr Glu Ile Lys Asp Gly Gln Ile 120 Arg Gly Thr Val Ser Ser Gln Arg Gln Pro Ala Leu Lys Ala Thr Gly 135 140 Asp Glu Lys Asp Ser Val Ser Asn Ile Ala Arg Glu Ile Lys Asp Gly 150 155 145 Glu Lys Ser Gly Thr Val Ser Pro Gln Lys Gln Ser Ala Gln Lys Val 165 170 175 Ile Phe Lys Lys Lys Val Ser Leu Leu Asn Ile Ala Thr Arg Ile Thr 185 Gly Gly Trp Lys Ser Gly Thr Glu Tyr Pro Glu Asn Leu Pro Thr Leu 200 Lys Ala Thr Ile Glu Asn Lys Asn Ser Val Leu Asn Thr Ala Thr Lys 215 Met Lys Asp Val Gln Thr Ser Thr Pro Glu Gln Asp Leu Glu Met Ala 230 235 Ser Glu Gly Glu Gln Lys Arg Leu Glu Glu Tyr Glu Asn Asn Gln Pro 250 Gln Val Lys Asn Gln Ile His Ser Arg Asp Asp Leu Asp Asp Ile Ile 265 Gln Ser Ser Gln Thr Val Ser Glu Asp Gly Asp Ser Leu Cys Cys Asn 280 285 Cys Lys Asn Val Ile Leu Leu Ile Asp Gln His Glu Met Lys Cys Lys 295 300 Asp Cys Val His Leu Leu Lys Ile Lys Lys Thr Phe Cys Leu Cys Lys 310 315 Arg Leu Thr Glu Leu Lys Asp Asn His Cys Glu Gln Leu Arg Val Lys 325 330 Ile Arg Lys Leu Lys Asn Lys Ala Ser Val Leu Gln Lys Arg Leu Ser 340 345 Glu Lys Glu Glu Ile Lys Ser Gln Leu Lys His Glu Thr Leu Glu Leu 360

380 381

Glu Lys Glu Leu Cys Ser Leu Arg Phe Ala Ile Gln Gln

375

370

<210> 750 <211> 296 <212>Amino acid <213> Homo sapiens

<400> 750 Ser Pro Leu Arg Tyr Arg Ala Gly Gln Ser Gly Ser Thr Ile Ser Ser 1 10 Ser Ser Cys Ala Met Trp Arg Cys Gly Gly Arg Gln Gly Leu Cys Val 20 25 Leu Arg Arg Leu Ser Gly Gly His Ala His His Arg Ala Tro Arg Tro 35 40 Asn Ser Asn Arg Ala Cys Glu Arg Ala Leu Gln Tyr Lys Leu Gly Asp 55 60 Lys Ile His Gly Phe Thr Val Asn Gln Val Thr Ser Val Pro Glu Leu 70 75 Phe Leu Thr Ala Val Lys Leu Thr His Asp Asp Thr Gly Ala Arg Tyr 90 Leu His Leu Ala Arg Glu Asp Thr Asn Asn Leu Phe Ser Val Gln Phe 105 Arg Thr Thr Pro Met Asp Ser Thr Gly Val Pro His Ile Leu Glu His 115 120 125 Thr Val Leu Cys Gly Ser Gln Lys Tyr Pro Cys Arg Asp Pro Phe Phe 140 135 Lys Met Leu Asn Arg Ser Leu Ser Thr Phe Met Asn Ala Phe Thr Ala 145 150 155 Ser Asp Tyr Thr Leu Tyr Pro Phe Ser Thr Gln Asn Pro Lys Asp Phe 165 170 175 Gln Asn Leu Leu Ser Val Tyr Leu Asp Ala Thr Phe Phe Pro Cys Leu 185 190 3.80 Arg Glu Leu Asp Phe Trp Gln Glu Gly Trp Arg Leu Glu His Glu Asn 195 200 205 Pro Ser Asp Pro Gln Thr Pro Leu Val Phe Lys Gly Val Val Phe Asn 215 220 Glu Met Lys Gly Ala Phe Thr Asp Asn Glu Arg Ile Phe Ser Gln His 230 235 Leu Gln Asn Arg Leu Leu Pro Asp His Thr Tyr Ser Val Val Ser Gly 245 250 Gly Asp Pro Leu Cys Ile Pro Glu Leu Thr Trp Glu Gln Leu Lys Gln 265 Phe His Ala Thr His Tyr His Pro Ser Asn Ala Arg Phe Phe Thr Tyr 275 280

<210> 751 <211> 163

<211> 163 <212>Amino acid

Gly Asn Phe Pro Leu Asp Gln His

<213> Homo sapiens

 $<\!400>751$ Arg Gly Ala Lys Ala Lys Ser Ala Val Leu Pro Pro Gly Pro Pro Cys 1 5 10 15 Ser Ser Ile Leu Ile Leu Ser Pro Pro Ala Pro Leu Thr Pro Arg Ser

295 296

25 Pro Gly Thr Glu Ala Thr Arg Pro Thr Ala Met Ser Lys Ser Leu Lys 40 45 Lys Lys Ser His Trp Thr Ser Lys Val His Glu Ser Val Ile Gly Arg 55 60 Asn Pro Glu Gly Gln Leu Gly Phe Glu Leu Lys Gly Gly Ala Glu Asn 70 75 Gly Gln Phe Pro Tyr Leu Gly Glu Val Lys Pro Gly Lys Val Ala Tyr 90 85 Glu Ser Gly Ser Lys Leu Val Ser Glu Glu Leu Leu Glu Val Asn 105 110 .100 Glu Thr Pro Val Ala Gly Leu Thr Ile Arg Asp Val Leu Ala Val Ile 120 Lys His Cys Lys Asp Pro Leu Arg Leu Lys Cys Val Lys Gln Gly Glu 130 135 Ser Ser Gly Leu Leu Ser Val Leu Pro Gly Gly Gly Thr Ala Arg Gly 145 150 155 Ala Gly Gln 163

<210> 752 <211> 99 <212>Amino acid <213> Homo sapiens

<400> 752 Ser His Arg Pro Gln Pro Asp Ala Trp Arg Gln Gly Asn Ala Phe Gln 5 10 Cys Val Gln Lys Glu Lys Met Gln Val Ser Ser Ala Glu Val Arg Ile 2.0 25 Gly Pro Met Arg Leu Thr Gln Asp Pro Ile Gln Val Leu Leu Ile Phe 35 40 Ala Lys Glu Asp Ser Gln Ser Asp Gly Phe Trp Trp Ala Cys Asp Arg 55 Ala Gly Tyr Arg Cys Asn Ile Ala Arg Thr Pro Glu Ser Ala Leu Glu 70 75 Cys Phe Leu Asp Lys His His Glu Ile Ile Val Ile Asp His Arg Gln 85 Thr Gln Asn 99

<210> 753 <211> 193 <212>Amino acid <213> Homo sapiens

<400> 753
Phe Arg Leu Ala Gly Cys Gly His Leu Leu Val Ser Leu Leu Gly Leu
1 1 5 10
1 10 15
Leu Leu Leu Ala Arg Ser Gly Thr Arg Ala Leu Val Cys Leu Pro
20 25 30
Cys Asp Glu Ser Lys Cys Glu Glu Pro Arg Asn Cys Pro Gly Ser Ile
35 40
Val Gln Gly Val Cys Gly Cys Cys Tyr Thr Cys Ala Ser Gln Arg Asn

55 Glu Ser Cys Gly Gly Thr Phe Gly Ile Tyr Gly Thr Cys Asp Arg Gly 75 70 Leu Arg Cys Val Ile Arg Pro Pro Leu Asn Gly Asp Ser Leu Thr Glu 85 90 Tyr Glu Ala Gly Val Cys Glu Asp Glu Asn Trp Thr Asp Asp Gln Leu 100 105 Leu Gly Phe Lys Pro Cys Asn Glu Asn Leu Ile Ala Gly Cys Asn Ile 115 120 Ile Asn Gly Lys Cys Glu Cys Asn Thr Ile Arg Thr Cys Ser Asn Pro 130 . 135 Phe Glu Phe Pro Ser Gln Asp Met Cys Leu Ser Ala Leu Lys Arg Ile 150 155 Glu Glu Glu Lys Pro Asp Cys Ser Lys Ala Arg Cys Glu Val Gln Phe 165 170 Ser Pro Arg Cys Pro Glu Asp Ser Val Leu Ile Glu Gly Tyr Ala Pro 185 Pro 193

<210> 754 <211> 73 <212>Amino acid <213> Homo sapiens

400> 754
Phe Arg Met Ala Ala Asn Val Gly Ser Met Phe Gln Tyr Trp Lys Arg

1 5 . 10 15
Phe Asp Leu Gln Gln Leu Gln Arg Glu Leu Asp Ala Thr Ala Thr Val
20 25 25
Leu Ala Asn Arg Gln Asp Glu Ser Glu Gln Ser Arg Lys Arg Leu Ile
31 Glu Gln Ser Arg Glu Phe Lys Lys Asn Thr Pro Glu Val Arg Arg Val
50 55 60
Thr Ile Val Phe Ala Leu Lys Gly Ser
65 73

<210> 755 <211> 83 <212>Amino acid <213> Homo sapiens

83

<210> 756
<211> 100
<212> Amino acid
<213> Homo sapiens
<220>
<221> misc_feature
<222> (1), (100)

<223> X = anv amino acid or stop code

<210> 757 <211> 130 <212>Amino acid <213> Homo sapiens

100

Asn Ser Arg Val Asp Asp Phe Val Ser Ala Arg Pro Lys Pro Arg Pro 1.0 Leu Pro Arg Ala Arg Gly Met Val Val Val Thr Gly Arg Glu Pro Asp 25 Ser Arg Arg Gln Asp Gly Ala Met Ser Ser Ser Asp Ala Glu Asp Asp 40 Phe Leu Glu Pro Ala Thr Pro Thr Ala Thr Gln Ala Gly His Ala Leu 55 Pro Pro Ala Ala Thr Gly Ser Phe Leu Arg Leu Phe Pro Leu Thr Ser 70 75 Glu Gly Leu Thr Ser Leu His Ala Cys Pro His Cys Gly Ala Thr Lys Thr Pro Cys Trp Gln Pro Cys Ser Val Gly Gly Thr Thr Ser Pro Arg 100 105 110 Thr Pro Arg Ala Gly Thr Ser Ser Thr Glu Met Ala His Thr Leu Glu Met Cys 130

<210> 758 <211> 121 <212>Amino acid <213> Homo sapiens

<400> 758 Arg Ala Leu. Trp Val Gly Gly Cys Ser Gly Glu Ala Cys Gly Ile Gly Met Ser Gly Leu Leu Thr Asp Pro Glu Gln Arg Ala Gln Glu Pro Arg Tyr Pro Gly Phe Val Leu Gly Leu Asp Val Gly Ser Ser Val Ile Arg 40 Cys His Val Tyr Asp Arg Ala Ala Arg Val Cys Gly Ser Ser Val Gln 55 Lys Val Glu Asn Leu Tyr Pro Gln Ile Gly Trp Val Glu Ile Asp Pro 70 75 Asp Val Leu Trp Ile Gln Phe Val Ala Val Ile Lys Glu Ala Val Lys 85 90 Ala Ala Gly Ile Gln Met Asn Gln Ile Val Gly Leu Gly Ile Ser Thr 105 100 Gln Arg Ala Thr Phe Ile Thr Trp Asn 120 121

<210> 759 <211> 210 <212>Amino acid <213> Homo sapiens

<400> 759 Gly Leu Ala Ala Glu Gln Ser Met Gln Phe Val Lys Leu Trp Cys Gly Cys Ser Gly Glu Phe Pro Thr Arg Leu Arg Arg Arg Thr Pro Leu Thr 20 Glu Ala Met Glu Gly Gly Pro Ala Val Cys Cys Gln Asp Pro Arg Ala Glu Leu Val Glu Arg Val Ala Ala Ile Asp Val Thr His Leu Glu Glu Ala Asp Gly Gly Pro Glu Pro Thr Arg Asn Gly Val Asp Pro Pro Pro 75 Arg Ala Arg Ala Ala Ser Val Ile Pro Gly Ser Thr Ser Arg Leu Leu 90 Pro Ala Arg Pro Ser Leu Ser Ala Arg Lys Leu Ser Leu Gln Glu Arg 105 Pro Ala Gly Ser Tyr Leu Glu Ala Gln Ala Gly Pro Tyr Ala Thr Gly 120 Pro Ala Ser His Ile Ser Pro Arg Ala Trp Arg Arg Pro Thr Ile Glu 135 Ser His His Val Ala Ile Ser Asp Ala Glu Asp Cys Val Gln Leu Asn 150 155 Gln Tyr Lys Leu Gln Ser Glu Ile Gly Lys Gly Ala Tyr Gly Val Val 170 Arg Leu Ala Tyr Asn Glu Ser Glu Asp Arg His Tyr Ala Met Lys Val 185 Leu Ser Lys Lys Leu Leu Lys Gln Tyr Gly Phe Pro Arg Arg Pro

Pro Pro 210

> <210> 760 <211> 172 <212>Amino acid <213> Homo sapiens

<400> 760 Phe Val Tyr Gly Lys Pro Val Thr Leu Trp Pro Thr Ile Ser Ser Val Val Pro Ser Thr Phe Leu Gly Leu Gly Asn Tyr Glu Val Glu Val Glu 25 Ala Glu Pro Asp Val Arg Gly Pro Glu Ile Val Thr Met Gly Glu Asn 40 Asp Pro Pro Ala Val Glu Ala Pro Phe Ser Phe Arg Ser Leu Phe Gly 55 60 Leu Asp Asp Leu Lys Ile Ser Pro Val Ala Pro Asp Ala Asp Ala Val 70 75 Ala Ala Gln Ile Leu Ser Leu Leu Pro Leu Lys Phe Phe Pro Ile Ile 85 90 Val Ile Gly Ile Ile Ala Leu Ile Leu Ala Leu Ala Ile Gly Leu Gly 105 110 Ile His Phe Asp Cys Ser Gly Lys Tyr Arg Cys Arg Ser Ser Phe Lys 115 120 125 Cys Ile Glu Leu Ile Ala Arg Cys Asp Gly Val Ser Asp Cys Lys Asp 135 140 Gly Glu Asp Glu Tyr Arg Cys Val Arg Val Gly Gly Gln Asn Ala Ala 155 150 Leu Gln Val Phe Thr Ala Ala Ser Arg Lys Thr Met 165 170 172

<210> 761 <211> 104 <212>Amino acid <213> Homo sapiens

<400> 761 Ser Leu Ala Met Pro Phe Gly Cys Val Thr Leu Gly Asp Lys Lys Asn 10 Tyr Asn Gln Pro Ser Glu Val Thr Asp Arg Tyr Asp Leu Gly Gln Val 25 Ile Lys Thr Glu Glu Phe Cys Glu Ile Phe Arg Ala Lys Asp Lys Thr 40 Thr Gly Lys Leu His Thr Cys Lys Lys Phe Gln Lys Arg Asp Gly Arg 55 Lys Val Arg Lys Ala Ala Lys Asn Glu Ile Gly Ile Leu Lys Met Val 70 75 Lys His Pro Asn Ile Leu Gln Leu Val Asp Val Phe Val Thr Arg Lys 85 90 Glu Tyr Phe Ile Phe Leu Glu Leu 100 104

<210> 762 <211> 249 <212>Amino acid <213> Homo sapiens

<400> 762 Gln Arg Arg Arg Phe Arg Ala Gly Leu Trp Gly Gly His Gly Leu Thr 10 Asp Gly Leu Arg Arg Asn Gly Gly Cys Gly Cys Ser Ala Arg Val Pro 25 Arg Val Gly Glu Arg Leu Arg Gly His Arg Cys Pro Asp Pro Leu Cys 40 Leu Leu Leu Asp Met Leu Phe Leu Ser Phe His Ala Gly Ser Trp Glu 55 Ser Trp Cys Cys Cys Leu Ile Pro Ala Asp Arg Pro Trp Asp Arg 70 Gly Gln His Trp Gln Leu Glu Met Ala Asp Thr Arg Ser Val His Glu 85 90 Thr Arg Phe Glu Ala Ala Val Lys Val Ile Gln Ser Leu Pro Lys Asn 100 105 Gly Ser Phe Gln Pro Thr Asn Glu Met Met Leu Lys Phe Tyr Ser Phe 120 Tyr Lys Gln Ala Thr Glu Gly Pro Cys Lys Leu Ser Arg Pro Gly Phe 130 135 140 Trp Asp Pro Ile Gly Arg Tyr Lys Trp Asp Ala Trp Ser Ser Leu Gly 150 155 Asp Met Thr Lys Glu Glu Ala Met Ile Ala Tyr Val Glu Glu Met Lys 170 Lys Ile Ile Glu Thr Met Pro Met Thr Glu Lys Val Glu Glu Leu Leu 185 190 Arg Val Ile Gly Pro Phe Tyr Glu Ile Val Glu Asp Lys Lys Ser Gly 200 205 Arg Ser Ser Asp Ile Thr Ser Asp Leu Gly Asn Val Leu Thr Ser Thr 215 220 Pro Asn Ala Lys Thr Val Asn Gly Lys Ala Glu Ser Ser Asp Ser Gly 230 235 Ala Glu Ser Glu Glu Glu Glu Ala Cys 245 249

<210> 763 <211> 184 <212>Amino acid <213> Homo sapiens

4400> 763
Ser Cys Phe Lys Gly Arg Thr Gly Gly Arg Ser Gly Ser Ser Gly Asp

1 10
15
Ser Ser Arg Trp Ala Arg Cys Gly Arg His Phe Ser Ala Ser Thr Glu
20 25
Glu Pro Pro Leu Ser Gln Pro Cys Ser Ala Leu Pro Arg Ser Gly Arg
30
Arg Gly Cys Ala Val Pro Ser Ser Val Thr Lys Met Leu Ser Phe Phe
50
Arg Arg Thr Leu Gly Arg Arg Ser Met Arg Lys His Ala Glu Lys Glu
65
70
75
80

Arg Leu Arg Glu Ala Gln Arg Ala Ala Thr His Ile Pro Ala Ala Gly 85 90 Asp Ser Lys Ser Ile Ile Thr Cys Arg Val Ser Leu Leu Asp Gly Thr 1.00 105 110 Asp Val Ser Val Asp Leu Pro Lys Lys Ala Lys Gly Gln Glu Leu Phe 115 120 Asp Gln Ile Met Tyr His Leu Asp Leu Ile Glu Ser Asp Tyr Phe Gly 135 140 Leu Arg Phe Met Asp Ser Ala Gln Val Ala His Trp Leu Asp Gly Thr 150 155 Lys Ser Ile.Lys Lys Gln Val Lys Ile Gly Ser Pro Tyr Cys Leu His 165 170 Leu Arg Val Lys Phe Tyr Ser Ser 180 184

<210> 764 <211> 138 <212>Amino acid <213> Homo sapiens

<400> 764 Glu Ser Arg Glu Arg Ser Gly Asn Arg Arg Gly Ala Glu Asp Arg Gly 10 Thr Cys Gly Leu Gln Ser Pro Ser Ala Met Leu Gly Ala Lys Pro His 20 25 Trp Leu Pro Gly Pro Leu His Ser Pro Gly Leu Pro Leu Val Leu Val 40 Leu Leu Ala Leu Gly Ala Gly Trp Ala Gln Glu Gly Ser Glu Pro Val 55 Leu Leu Glu Gly Glu Cys Leu Val Val Cys Glu Pro Gly Arg Ala Ala 70 75 Ala Gly Gly Pro Gly Gly Ala Ala Leu Gly Glu Ala Pro Pro Gly Arg 90 Val Ala Phe Ala Ala Val Arg Ser His His His Glu Pro Ala Gly Glu 105 Thr Gly Asn Gly Thr Ser Gly Ala Ile Tyr Phe Asp Gln Val Leu Val 120 Asn Glu Gly Gly Gly Phe Asp Arg Ala Ser

<210> 765 <211> 168 <212>Amino acid <213> Homo sapiens

4400 - 765
Glu Asp Val Lys Ser Tyr Tyr Thr Val His Leu Pro Gln Leu Glu Asn
1
11e Asn Ser Gly Glu Thr Arg Thr 1e Ser His Phe His Tyr Thr Thr
20
25
Trp Pro Asp Phe Gly Val Pro Gln Ser Pro Ala Ser Phe Leu Asn Phe
35
Leu Phe Lys Val Arg Glu Ser Gly Ser Leu Asn Pro Asp His Gly Pro
50
60

Val Val Ile His Arg Ser Ala Gly Thr Gly Arg Ser Ser Thr Phe Ser 70 75 Val Val His Thr Cys Leu Val Leu Met Glu Lys Gly Asp Asp Ile Asn 85 90 Ile Lys Gln Val Leu Leu Asn Ile Arg Lys Phe Gln Met Gly Leu Ile 105 Gln Thr Pro Asp Gln Leu Arg Phe Ser Tyr Met Ala Ile Thr Glu Gly 120 Ala Lys Cys Val Lys Gly Asp Ser Ser Ile Gln Lys Arg Trp Lys Glu 135 140 Leu Ser Lys Glu Asp Leu Pro Pro Ala Phe Asp His Ser Pro Asn Lys 1.50 Ile Met Thr Glu Lys Tyr Asn Arg 165 168

<210> 766 <211> 255 <212>Amino acid <213> Homo sapiens

<400> 766 Leu Asn Arg Gln Arg Cys Gly Asp Gln Val Leu Val Pro Gly Thr Gly 10 Leu Ala Ala Ile Leu Arg Thr Leu Pro Met Phe His Asp Glu Glu His 25 Ala Arg Ala Arg Gly Leu Ser Glu Asp Thr Leu Val Leu Pro Pro Ala 40 Ser Arg Asn Gln Arg Ile Leu Tyr Thr Val Leu Glu Cys Gln Pro Leu 55 Phe Asp Ser Ser Asp Met Thr Ile Ala Glu Trp Val Cys Leu Ala Gln 70 Thr Ile Lys Arg His Tyr Glu Gln Tyr His Gly Phe Val Val Ile His 90 Gly Thr Asp Thr Met Ala Phe Ala Ala Ser Met Leu Ser Phe Met Leu 105 Glu Asn Leu Gln Lys Thr Val Ile Leu Thr Gly Ala Gln Val Pro Ile 120 His Ala Leu Trp Ser Asp Gly Arg Glu Asn Leu Leu Gly Ala Leu Leu 135 140 Met Ala Gly Gln Tyr Val Ile Pro Glu Val Cys Leu Phe Phe Gln Asn 150 155 Gln Leu Phe Arg Gly Asn Arg Ala Thr Lys Val Asp Ala Arg Arg Phe 165 170 Ala Ala Phe Cys Ser Pro Asn Leu Leu Pro Leu Ala Thr Val Gly Ala 180 185 Asp Ile Thr Ile Asn Arg Glu Leu Val Arg Lys Val Asp Gly Lys Ala 200 Gly Leu Val Val His Ser Ser Met Glu Gln Asp Val Gly Leu Leu Arg 215 . 220 Leu Tyr Pro Gly Ile Pro Ala Ala Leu Val Arg Ala Phe Leu Gln Pro 230 235 240 Pro Leu Lys Gly Val Val Met Glu Thr Phe Gly Ser Gly Asn Gly 245 250

<210> 767

<211> 260

<212>Amino acid <213> Homo sapiens

<400> 767 Leu Phe Arg Leu Ala Pro Gly Phe Leu Arg Ser Leu Ala Arg Gln Gly 3 10 Tyr His Gln Ile Trp Ala Phe Pro Phe Leu Pro Ser Gly Ala Thr Ala 2.5 Thr Trp Pro.Ala Ala Ser Arg Ser Arg Ser Leu Ala Ala Arg Ser Leu 40 Pro Arg Ser Pro Ala Arg Pro Gly Pro Asn Asp Ala Leu Leu Gly Glu 55 His Asp Phe Arg Gly Gln Gly Val Arg Ala Gln Arg Phe Arg Phe Ser Glu Glu Pro Gly Pro Gly Ala Asp Gly Ala Val Leu Glu Val His Val 90 Pro Gln Ile Gly Ala Gly Val Ser Leu Pro Gly Ile Leu Ala Ala Lys 100 105 Cys Gly Ala Glu Val Ile Leu Ser Asp Ser Ser Glu Leu Pro His Cys 120 Leu Glu Val Cys Arg Gln Ser Cys Gln Met Asn Asn Leu Pro His Leu 135 140 Gln Val Val Gly Leu Thr Trp Gly His Ile Ser Trp Asp Leu Leu Ala 150 155 Leu Pro Pro Gln Asp Ile Ile Leu Ala Ser Asp Val Phe Phe Glu Pro 165 170 175 Glu Asp Phe Glu Asp Ile Leu Ala Thr Ile Tyr Phe Leu Met His Lys 180 185 Asn Pro Lys Val Gln Leu Trp Ser Thr Tyr Gln Val Arg Ser Ala Asp 205 . 195 200 Trp Ser Leu Glu Ala Leu Leu Tyr Lys Trp Asp Met Lys Cys Val His 215 220 Ile Pro Leu Glu Ser Phe Asp Ala Asp Lys Glu Asp Ile Ala Glu Ser 230 235 Thr Leu Pro Gly Arg His Thr Val Glu Met Leu Val Ile Ser Phe Ala 250

Lys Asp Ser Leu 260

> <210> 768 <211> 200 <212>Amino acid

<213> Homo sapiens

<220>

<221> misc_feature

<222> (1) ... (200)

<223> X = any amino acid or stop code

<400> 768

Ser Phe 11e Tyr Lys His Thr His Arg Ala Arg Phe Gly Pro Arg Ala 1 5 10 15 15 10 15 11e Val Ala Ser Pro Ala Leu Thr Ala Gly Pro His Val Ser Leu Thr 20 Ala Ser Cys Arg Val Gly Met Trp Val Ser Cys Ser Pro Ser Pro Fhe 35 40 Leu His Pro Thr Asn Thr Leu Val Ala Val Leu Glu Arg Asp Thr Leu

55 Gly Ile Arg Glu Val Arg Leu Phe Asn Ala Val Val Arg Trp Ser Glu 70 75 Ala Glu Cys Gln Arg Gln Gln Leu Gln Val Thr Pro Glu Asn Arg Arg 85 90 Lys Val Leu Gly Lys Ala Leu Gly Leu Ile Arg Phe Pro Leu Met Thr 100 105 Ile Glu Glu Phe Ala Ala Gly Asn Arg Ala Arg Ala Gln Gly Leu Val 120 125 Trp Glu Gly Ser Gly Thr Gln Val Gly Ile Trp Cys Thr Glu Asp Ser 140 130 . 135 Ala Pro Glu Phe Thr Ala Glu Ser Leu Ala Asp Ala Trp His Ile Gln 150 155 Ile Gly Arg Asn Leu Ala Cys Glu Asp Ala Ser Thr Trp Ala Ile Cys 170 Xaa Pro Arg Pro Gly Ser Val Pro Thr Val His Thr Ala Arg Pro Arg 185 Leu Ser Cys Leu Ser Ser Cys Phe 195

<210> 769 <211> 33 <212>Amino acid <213> Homo sapiens <220> <221> misc feature

<222> (1)...(33) <223> X = any amino acid or stop code

4400-769
Met Ala Ser Thr Gin Asp Ala Glu Leu Ala Val Ser Arg Xaa Arg Ala
1 10
15 10
Ala Leu Xaa Pro Gly Xaa Gln Ser Xaa Xaa Pro Ser Gln Lys Lys
20
25
30

Lys 33

> <210> 770 <211> 599 <212>Amino acid <213> Homo sapiens

<400> 770

```
Ala Phe Glu Ser Arg Leu Ser Arg Leu Lys Arg Ala Ser Ser Glu Asp
              85
                                90
Thr Leu Asn Lys Pro Gly Ser Thr Ala Ala Ser Gly Val Val Arg Leu
                           105
Lys Lys Thr Ala Thr Ala Gly Ala Ile Ser Glu Leu Thr Glu Ser Arg
            . 120
Leu Arg Ser Gly Thr Gly Ala Phe Thr Thr Thr Lys Arg Thr Gly Ile
        135
                                      140
Pro Ala Pro Arg Glu Phe Ser Val Thr Val Ser Arg Glu Arg Ser Val
                150
                                  155
Pro Arg Gly Pro Ser Asn Pro Arg Lys Ser Val Ser Ser Pro Thr Ser
              165
                               170
Ser Asn Thr Pro Thr Pro Thr Lys His Leu Arg Thr Pro Ser Thr Lys
                            185
Pro Lys Gln Glu Asn Glu Gly Gly Glu Lys Val Arg Leu Ser Pro Lys
                        200
Phe Arg Glu Leu Leu Ala Glu Ala Lys Ala Lys Asp Ser Glu Ile Asn
                     215
                                      220
Arg Leu Arg Ser Glu Leu Lys Lys Tyr Lys Glu Lys Arg Thr Leu Asn
                 230
                                   235
Ala Glu Gly Thr Asp Ala Leu Gly Pro Asn Val Asp Gly Thr Ser Val
              245
                               250
Ser Pro Gly Asp Thr Glu Pro Met Ile Arg Ala Leu Glu Glu Lys Asn
          260
                           265
Lys Asn Phe Gln Lys Glu Leu Ser Asp Leu Glu Glu Glu Asn Arg Val
                        280
Leu Lys Glu Lys Leu Ile Tyr Leu Glu His Ser Pro Asn Ser Glu Gly
                     295
                                      300
Ala Ala Ser His Thr Gly Asp Ser Ser Cys Pro Thr Ser Ile Thr Gln
                 310
                                  315
Glu Ser Ser Phe Gly Ser Pro Thr Gly Asn Gln Leu Ser Ser Asp Ile
              325
                               330
Asp Glu Tyr Lys Lys Asn Ile His Gly Asn Ala Leu Arg Thr Ser Gly
                           345
Ser Ser Ser Ser Asp Val Thr Lys Ala Ser Leu Ser Pro Asp Ala Ser
                       360
                                365
Asp Phe Glu His Ile Thr Ala Glu Thr Pro Ser Arg Pro Leu Ser Ser
                    375 380
Thr Ser Asn Pro Phe Lys Ser Ser Lys Cys Ser Thr Ala Gly Ser Ser
                                  395
              390
Pro Asn Ser Val Ser Glu Leu Ser Leu Ala Ser Leu Thr Glu Lys Ile
             4.05
                              410
Gln Lys Met Glu Glu Asn His His Ser Thr Ala Glu Glu Leu Gln Ala
          420 425
Thr Leu Gln Glu Leu Ser Asp Gln Gln Gln Met Val Gln Glu Leu Thr
                       440
Ala Glu Asn Glu Lys Leu Val Asp Glu Lys Thr Ile Leu Glu Thr Ser
                    455
                            460
Phe His Gln His Arg Glu Arg Ala Glu Gln Leu Ser Gln Glu Asn Glu
                470
                                475
Lys Leu Met Asn Leu Leu Gln Glu Arg Val Lys Asn Glu Glu Pro Thr
            485
                              490
Thr Gln Glu Gly Lys Ile Ile Glu Leu Glu Gln Lys Cys Thr Gly Ile
          500
                           505
Leu Glu Gln Gly Arg Phe Glu Arg Glu Lys Leu Leu Asn Ile Gln Gln
                       520
Gln Leu Thr Cys Ser Leu Arg Lys Val Glu Glu Glu Asn Gln Gly Ala
                    535
                                      540
Leu Glu Met Ile Lys Arg Leu Lys Glu Glu Asn Glu Lys Leu Asn Glu
                 550
                                  555
Phe Leu Glu Leu Glu Arg His Asn Asn Met Met Ala Lys Thr Leu
             565
                    570
Glu Glu Cys Arg Val Thr Leu Glu Gly Leu Lys Met Glu Asn Gly Ser
          580
                  . 585
```

Leu Lys Ser His Leu Gln Gly 595 599

> <210> 771 <211> 103 <212>Amino acid <213> Homo sapiens

<400> 771 Ser Gln Met His Arq Leu Ile Phe Val Tyr Thr Leu Ile Cys Ala Asn Phe Cys Ser Cys Arg Asp Thr Ser Ala Thr Pro Gln Ser Ala Ser Ile 25 Lys Ala Leu Arg Asn Ala Asn Leu Arg Arg Asp Glu Ser Asn His Leu Thr Asp Leu Tyr Arg Arg Asp Glu Thr Ile Gln Val Lys Gly Asn Gly 55 60 Tyr Val Gln Ser Pro Arg Phe Pro Asn Ser Tyr Pro Arg Asn Leu Leu 75 70 Leu Thr Trp Arg Leu His Ser Gln Glu Asn Thr Arg Ile Gln Leu Val 85 90 Phe Asp Asn Gln Phe Glv Leu 100

<210> 772 <211> 218 <212>Amino acid <213> Homo sapiens

<400> 772 Pro Phe Lys Lys Met Thr Asp Leu Leu Arg Ser Val Val Thr Val Ile Asp Val Phe Tyr Lys Tyr Thr Lys Gln Asp Gly Glu Cys Gly Thr Leu 20 25 Ser Lys Gly Glu Leu Lys Glu Leu Leu Glu Lys Glu Leu His Pro Val 40 Leu Lys Asn Pro Asp Asp Pro Asp Thr Val Asp Val Ile Met His Met 55 Leu Asp Arg Asp His Asp Arg Arg Leu Asp Phe Thr Glu Phe Leu Leu 70 Met Ile Phe Lys Leu Thr Met Ala Cys Asn Lys Val Leu Ser Lys Glu 90 Tyr Cys Lys Ala Ser Gly Ser Lys Lys His Arg Arg Gly His Arg His 105 Gln Glu Glu Glu Ser Glu Thr Glu Glu Asp Glu Glu Asp Thr Pro Gly 120 His Lys Ser Gly Tyr Arg His Ser Ser Trp Ser Glu Gly Glu Glu His 135 140 Gly Tyr Ser Ser Gly His Ser Arg Gly Thr Val Lys Cys Arg His Gly 155 150 Ser Asn Ser Arg Arg Leu Gly Arg Gln Gly Asn Leu Ser Ser Gly 170 175 165 Asn Gln Glu Gly Ser Gln Lys Arg Tyr His Arg Ser Ser Cys Gly His 180 185 . 190

Ser Trp Ser Gly Gly Lys Asp Arg His Gly Ser Ser Ser Val Glu Leu
195 200 205

Arg Glu Arg Ile Asn Lys Ser His Ile Lys
210 215 218

<210> 773 <211> 130 <212>Amino acid <213> Homo sapiens

<400> 773 Val Pro Lys Ile Ser Gly Pro Asp His Ile Asp Phe Ile Pro Trp Asp 10 Gln Leu Phe Met Ala Ser Ser Ser Val Thr Glu Phe Leu Val Leu 20 25 Gly Phe Ser Ser Leu Gly Glu Leu Gln Leu Val Leu Phe Ala Val Phe 40 Leu Cys Leu Tyr Leu Ile Ile Leu Ser Gly Asn Ile Ile Ile Ser 55 60 Val Ile His Leu Asp His Ser Leu His Thr Pro Met Tyr Phe Phe Leu . 75 70 Gly Ile Leu Ser Ile Ser Glu Ile Phe Tyr Thr Thr Val Ile Leu Pro 85 90 Lys Met Leu Ile Asn Leu Phe Ser Val Phe Arg Thr Leu Ser Phe Val 100 105 Ser Cys Ala Thr Gln Met Phe Tyr Glu Ile Val Gly Pro Gly Thr Gln 120 Glu Arg

130

<210> 774 <211> 204 <212>Amino acid <213> Homo sapiens <220> <221> misc feature

<222> (1) ... (204) <223> X = any amino acid or stop code

4400- 774

Asp His Ser Thr Glu Thr Pro Gly Ile Pro Ala Ala Glu Pro Val Ser 1 10 15

His Gly Thr Gly Lys Leu Glu Arg Ala Pro Thr Leu Pro Ala Gly Ala 20 25

Glu Leu Pro Ala Pro Ala Ala Val Pro Cys Pro Thr Leu Xaa Val Cys 35 40 45

Leu Tyr Pro Gln Leu Leu Gly Leu Ser Val Ala Thr Met Val Thr Leu 50 55

Thr Tyr Phe Gly Ala His Phe Ala Val Ile Arg Arg Ala Ser Leu Glu 65 70 75 80

Lys Asn Pro Tyr Gln Ala Val His Gln Trp Gly Thr Gln Gln Arg Leu 95

11e Gln His Pro Glu Ser Gly Ser Glu Gly Gln Ser Leu Leu Gly Fee Glu Gly Gln Ser Leu Leu Cly Pro Gln His Pro Glu Ser Gly Ser Glu Gly Gln Ser Leu Leu Cly Pro Glo Gln His Pro Glu Ser Gly Ser Glu Gly Gln Ser Leu Leu Cly Pro Glo Gln His Pro Glu Ser Gly Ser Glu Gly Gln Ser Leu Leu Cly Pro Glo Gln His Pro Glu Ser Gly Ser Glu Gly Gln Ser Leu Leu Gly Pro Glu Gly Gln Ser Leu Cly Pro Glu Gly Gln Ser Leu Leu Gly Pro Glu Gly Gln Ser Leu Cly Pro Glu Gly Gln Ser Leu Cly Pro Glu Gly Gln Ser Leu Leu Gly Pro Glu Gly Gln Ser L

<210> 775 <211> 121 <212>Amino acid <213> Homo sapiens

<400> 775 Gln Pro Gly Tyr Ser Glu Tyr Asp Lys Asn Arg Gly Gln Gly Met Leu 10 Leu Asn Met Met Cys Gly Arg Gln Leu Ser Ala Ile Ser Leu Cys Leu 20 25 Ala Val Thr Phe Ala Pro Leu Phe Asn Ala Gln Ala Asp Glu Pro Glu 40 Val Ile Pro Gly Asp Ser Pro Val Ala Val Ser Glu Gln Gly Glu Ala 55 Leu Pro Gln Ala Gln Ala Thr Ala Ile Met Ala Gly Ile Gln Pro Leu 70 75 Pro Glu Gly Ala Ala Glu Lys Ala Arg Thr Gln Ile Glu Ser Gln Leu 90 Pro Ala Gly Tyr Lys Pro Val Tyr Leu Asn Gln Leu Gln Leu Leu Tyr 100 105 Ala Ala Arg Gly Ile Ser Cys Ser Val 115 120 121

<210> 776 <211> 142 <212>Amino acid <213> Homo sapiens

<400> 776

<210> 777 <211> 150 <212>Amino acid <213> Homo sapiens

<400> 777 Val Lys Gln Arg His Gly Asn Ser Leu Leu Thr Thr Glu Thr Lys Cys 5 10 15 Ile Ser Cys Arg Leu Gly Val Pro Leu Ser Pro Gln Arg Arg Phe Gln 20 25 Ala Ile Arg Ile Glu Glu Val Lys Leu Arg Trp Phe Ala Phe Leu Ile 35 40 Val Leu Leu Ala Gly Cys Ser Ser Lys His Asp Tyr Thr Asn Pro Pro 55 Trp Asn Ala Lys Val Pro Val Gln Arg Ala Met Gln Trp Met Pro Ile 65 75 Ser Gln Lys Ala Gly Ala Ala Trp Gly Val Asp Pro Gln Leu Ile Thr 85 90 Ala Ile Ile Ala Ile Glu Ser Gly Gly Asn Pro Asn Ala Val Ser Lys 105 Ser Asn Ala Ile Gly Leu Met Gln Leu Lys Ala Ser Thr Ser Gly Arg 120 Asp Val Tyr Arg Arg Met Gly Trp Ser Gly Glu Pro Thr Thr Ser Glu Leu Lys Asn Ser Ser Arg

<210> 778 <211> 296 <212>Amino acid <213> Homo sapiens

145

1.00 105 Ile Arg Arg Phe Leu Leu Ala Tyr Lys Met Met Leu Glu Phe Phe Gly 115 120 125 Ile Lys Leu Thr Asp Lys Thr Gly Asn Val Ala Arg Ala Val Asn Trp 130 135 140 Gln Glu Arg Phe Gln His Leu Asn Glu Ser Gln His Asn Tyr Leu Arg 145 150 155 160 Ile Thr Arg Ile Leu Lys Ser Leu Gly Glu Leu Gly Tyr Glu Ser Phe 165 170 175 Lys Ser Pro Leu Val Lys Phe Ile Leu His Glu Ala Leu Val Glu Asn .180 185 190 Thr Ile Pro Asn Ile Lys Gln Ser Ala Leu Glu Tyr Phe Val Tyr Thr 195 200 205 Ile Arg Asp Arg Arg Glu Arg Arg Lys Leu Leu Arg Phe Ala Gln Lys 210 215 220 His Tyr Thr Pro Ser Glu Asn Phe Ile Trp Gly Pro Pro Arg Lys Glu 225 230 235 Gln Ser Glu Gly Ser Lys Ala Gln Lys Met Ser Ser Pro Leu Ala Ser 245 250 255 Ser His Asn Ser Gln Thr Ser Met His Lys Lys Ala Lys Asp Ser Lys 260 265 270 Asn Ser Ser Ser Ala Val His Leu Asn Ser Lys Thr Ala Glu Asp Lys 275 280 Lys Val Ala Pro Lys Glu Pro Val 295 296

<210> 779 <211> 90 <212>Amino acid <213> Homo sapiens

<400> 779 Glu Leu Gln Val Phe Gln Pro Ile Gly Gly Met Ser Asp Ser Gly Ser 1 5 10 Gln Leu Gly Ser Met Gly Ser Leu Thr Met Lys Ser Gln Leu Gln Ile 25 Thr Val Ile Ser Ala Lys Leu Lys Glu Asn Lys Lys Asn Trp Phe Gly 40 Pro Ser Pro Tyr Val Glu Val Thr Val Asp Gly Gln Ser Lys Lys Thr 55 Glu Lys Cys Asn Asn Thr Asn Ser Pro Lys Trp Lys Gln Pro Leu Thr 70 Val Ile Val Thr Pro Val Ser Lys Leu His

<210> 780 <211> 88 <212>Amino acid

<213> Homo sapiens

Ile Glu Thr Leu Ser Phe Val Ile Arg Asn Trp Asn Thr His Ala Met 10 Ser Lys Pro Ile Val Met Glu Arg Gly Val Lys Tyr Arg Asp Ala Asp

20 25 30
Lys Met Ala Leu Ile Pro Val Lys Asn Val Ala Thr Glu Arg Glu Ala
35 40
Leu Leu Arg Lys Pro Glu Trp Met Lys Ile Lys Leu Pro Ala Asp Ser
50 60
Thr Arg Ile Gln Gly Ile Lys Ala Ala Met Arg Lys Asn Gly Leu His
65 70 75
Ser Val Cys Glu Glu Ala Ser Cys
88

<210> 781 <211> 35 <212>Amino acid <213> Homo sapiens

 $^{\circ}$ 4400> 781 Pro Arg Met Val Leu Gly Lys Pro Gln Thr Asp Pro Thr Leu Glu Trp 1 15 15 10 10 15 Phe Leu Ser His Cys His Ile His Lys Tyr Pro Ser Lys Ser Thr Leu 20 25 30 Ile Pro Gln 35

<210> 782 <211> 145 <212>Amino acid <213> Homo sapiens

<400> 782 Gly Leu Arg Ile Ser Val Gln Glu Arg Ile Lys Ala Cys Phe Thr Glu Ser Ile Gln Thr Gln Ile Ala Ala Ala Glu Ala Leu Pro Asp Ala Ile Ser Arg Ala Ala Met Thr Leu Val Gln Ser Leu Leu Asn Gly Asn Lys 40 Ile Leu Cys Cys Gly Asn Gly Thr Ser Ala Ala Asn Ala Gln His Phe Ala Ala Ser Met Ile Asn Arg Phe Glu Thr Glu Arg Pro Ser Leu Pro Ala Ile Ala Leu Asn Thr Asp Asn Val Val Leu Thr Ala Ile Ala Asn 90 Asp Arg Leu His Asp Glu Val Tyr Ala Lys Gln Val Arg Ala Leu Gly 105 His Ala Gly Asp Val Leu Leu Ala Ile Ser Thr Arg Gly Asn Ser Arg 120 Asp Ile Val Lys Ala Val Glu Ala Ala Val Thr Arg Asp Thr Thr Ile 135 Val 145

<210> 783 <211> 102 <212>Amino acid

<213> Homo sapiens

Tyr Gln Thr Arg Ser His Ile Asn Phe Asp Asp Gly Thr Ile Thr Ile
85
90
Glu Pro Ile Pro Gly Thr

Flu Pro Ile Pro Gly Thr 100 102

> <210> 784 <211> 78

<212>Amino acid

<213> Homo sapiens

<210> 785 <211> 148 <212>Amino acid

<213> Homo sapiens

<400> 785
Lys Glu Leu Val Asp Glu Lys Ser Glu Arg Gly Arg Ala Met Asp Pro 1
10 15
Val Ser Gln Leu Ala Ser Ala Gly Thr Phe Arg Val Leu Lys Glu Pro 20
20
Leu Ala Phe Leu Arg Ala Leu Glu Leu Leu Phe Ala Ile Phe Ala Phe 35
Ala Thr Cys Gly Gly Tyr Ser Gly Gly Leu Arg Leu Ser Val Asp Cys 50
Val Asn Lys Thr Glu Ser Asn Leu Ser Ile Asp Ile Ala Phe Ala Tyr

```
65 Pro Phe Arg Leu His Gln Val Thr Phe Glu Val Pro Thr Cys Glu Gly

Lys Glu Arg Gln Lys Leu Ala Leu Ile Gly Asp Ser Ser Ser Ala

100 105

Glu Phe Phe Val Thr Val Ala Val Phe Ala Phe Leu Tyr Ser Leu Ala

115

Ala Thr Gly Arg Tyr Ile Phe Phe His Asn Lys Asn Arg Glu Asn Asn

130

Arg Gly Pro Leu

145 .48
```

<210> 786 <211> 246 <212>Amino acid <213> Homo sapiens

<400> 786 Leu Gly Thr Val Ser Tyr Gly Ala Asp Thr Met Asp Glu Ile Gln Ser 1 5 10 His Val Arg Asp Ser Tyr Ser Gln Met Gln Ser Gln Ala Gly Gly Asn 25 . 30 20 Asn Thr Gly Ser Thr Pro Leu Arg Lys Ala Gln Ser Ser Ala Pro Lys 35 40 45 Val Arg Lys Ser Val Ser Ser Arg Ile His Glu Ala Val Lys Ala Ile 50 55 Val Leu Cys His Asn Val Thr Pro Val Tyr Glu Ser Arg Ala Gly Val 70 75 Thr Glu Glu Thr Glu Phe Ala Glu Ala Asp Gln Asp Phe Ser Asp Glu 90 85 Asn Arg Thr Tyr Gln Ala Ser Ser Pro Asp Glu Val Ala Leu Val Gln 100 105 Trp Thr Glu Ser Val Gly Leu Thr Leu Val Ser Arg Asp Leu Thr Ser 115 120 Met Gln Leu Lys Thr Pro Ser Gly Gln Val Leu Ser Phe Cys Ile Leu 135 Gln Leu Phe Pro Phe Thr Ser Glu Ser Lys Arg Met Gly Val Ile Val 145 150 155 Arg Asp Glu Ser Thr Ala Glu Ile Thr Phe Tyr Met Lys Gly Ala Asp 165 170 Val Ala Met Ser Pro Ile Val Gln Tyr Asn Asp Trp Leu Glu Glu Glu 185 Cys Gly Asn Met Ala Arg Glu Gly Leu Arg Thr Leu Val Val Ala Lys 200 Lys Ala Leu Thr Glu Glu Gln Tyr Gln Asp Phe Glu Val Ser Arg Leu 215 220 Pro Gly Ile Pro Ser Ser Tyr Asp Gly Ala Phe Leu Thr Leu Lys Leu 225 230 235 Val Leu Pro Val Phe Val 245 246

<210> 787 <211> 176 <212>Amino acid <213> Homo sapiens

Glu Gly Pro His Arg Arg Leu Phe Gln Met Val Lys Ala Leu Gln Glu 1.0 Ala Pro Glu Asp Pro Asm Glm Ile Leu Ile Gly Tyr Ser Arg Gly Leu 25 3.0 Val Val Ile Trp Asp Leu Gln Gly Ser Arg Val Leu Tyr His Phe Leu 3.5 40 Ser Ser Gln Gln Leu Glu Asn Ile Trp Trp Gln Arg Asp Gly Arg Leu 55 Leu Val Ser Cys His Ser Asp Gly Ser Tyr Cys Gln Trp Pro Val Ser 70 75 Ser Glu Ala Gln Gln Pro Glu Pro Leu Arg Ser Leu Val Pro Tyr Gly 90 Pro Phe Pro Cys Lys Ala Ile Thr Arg Ile Leu Trp Leu Thr Thr Arg 1.00 1.05 Gln Gly Leu Pro Phe Thr Ile Phe Gln Gly Gly Met Pro Arg Ala Ser 115 120 Tyr Gly Asp Arg His Cys Ile Ser Val Ile His Asp Gly Gln Gln Thr 1.35 140 Ala Phe Asp Phe Thr Ser Arg Val Ile Gly Phe Thr Val Leu Thr Glu 150 155 Ala Asp Pro Ala Ala Ser Arg Arg Ala Ser Gly Val Gly Ala Gln Gly

<210> 788 <211> 180

<212>Amino acid <213> Homo sapiens .

180

<400> 788 Lys Gln Gly Leu Glu Val Arg Asp Leu His Phe Lys Glu Ile Thr Ser 10 5 Gly Arg Ala Leu Leu Arg Val Ala Cys Lys Arg Pro Ser Met Val Pro Gly Gly Gln Leu Gln Arg Ala Gly Ala Gly Ala Gln Ala Arg Ile Thr Gly Leu Ser Pro Ala Leu Trp Gly Ala Arg Val His Gly Trp Ile Pro 55 Glu Leu Pro Ala Gly Leu Pro Pro Gly Ala Cys Leu Trp Pro Leu Ile 70 Pro Ala Cys Pro Ser Arg His Trp Gly Trp Val Ser Ala Pro Val Lys 85 90 Gly Trp Ala Gln Ala Ile Leu Gly Leu Ala Leu Cys Leu Arg Gly Glu 105 His Arg Gly Leu Gly Ala Gly Val Ser Lys Val Arg Ser Leu Lys Met 120 Asp Arg Lys Val Trp Thr Glu Thr Leu Ile Glu Val Gly Met Pro Leu 135 140 Leu Ala Thr Asp Thr Trp Gly Leu Pro His Ser Thr Ala Val Trp Val 150 155 160 Ser Gln Pro Pro Pro Tyr Leu Ser Asp His Ser Thr Leu Glu Leu Glu 170 Arg Asp Pro Leu

<210> 789 <211> 145 <212>Amino acid <213> Homo sapiens

<400> 789 Leu Ser Cys Asn Ser Glu Gln Ala Leu Leu Ser Leu Val Pro Val Gln 1 5 10 Arg Glu Leu Leu Arg Arg Arg Tyr Gln Ser Ser Pro Ala Lvs Pro Asp 20 Ser Ser Phe Tyr Lys Gly Leu Gly Thr Cys Pro Ser Gln Leu Arg Leu 35 40 Ser Glu Pro Pro Pro Thr Pro Arg His Leu Ser Val Ala Ser Val Ser 55 His His Met Phe Pro Ser His Arg Ser Leu Cys Pro His Leu Pro Asp 65 70 75 Phe Phe Ala Ala Pro Phe Pro Ser Asp Asn Leu Pro Tyr Thr Leu Gln 85 90 Ser Pro Phe Pro Ser Pro Pro Pro Ala Thr Pro Ser Asp His Ala Leu 105 110 100 Ile Leu His His Asp Leu Asn Gly Gly Pro Asp Asp Pro Leu Gln Gln 120 125 Thr Gly Gln Leu Phe Gly Gly Leu Val Arg Asp Ile Arg Arg Arg Tyr 135 Pro 145

<210> 790 <211> 65 <212>Amino acid <213> Homo sapiens

<<pre><<pre><<pre><<pre><<pre><<pre><<pre><<pre>1 color for Ser Ser Lys Leu Val Gly Met Trp Trp Ala Gly Arg Ala Gly
1 color for Ser Ser Trg Thr Ser Val Ser Leu Leu Cys Leu Pro Ser Ala Pro
20 color for Ser Ala Pro
40 color for Ser Ala Pro
40 color for Ser Ala Cys Trp Val
50 color for Ser Ala Ala Ala Ala Cys Trp Val
50 color for Ser Ala Ala Cys Trp Val
50 color for Ser Ala Cys Trp Val
51 color for Ser Ala Cys Trp Val
52 color for Ser Ala Cys Trp Val
53 color for Ser Ala Cys Trp Val
54 color for Ser Ala Cys Trp Val
55 color for Ser Ala Cys Trp Val
56 color for Ser Ala Cys Trp Val
57 color for Ser Ala Cys Trp Val
58 color for Ser Ala Cys Trp Val
59 color for Ser Ala Cys Trp Val
50 color for Ser Ala Cys Trp Val
51 color for Ser Ala Cys Trp Val
52 color for Ser Ala Cys Trp Val
53 color for Ser Ala Cys Trp Val
54 color for Ser Ala Cys Trp Val
56 color for Ser Ala Cys Trp Val
57 color for Ser Ala Cys Trp Val
58 color for Ser Ala Cys Trp Val
59 color for Ser Ala Cys Trp Val
50 color for Se

<210> 791 <211> 144 <212>Amino acid <213> Homo sapiens

<400> 791 Arg Val Asp Pro Arg Val Arg Ala Pro Arg Cys Gly Asp Lys Ile Lys 10 Asn His Met Tyr Lys Cys Asp Cys Gly Ser Leu Lys Asp Cys Ala Ser 25 Asp Arg Cys Cys Glu Thr Ser Cys Thr Leu Ser Leu Gly Ser Val Cys Asn Thr Gly Leu Cys Cys His Lys Cys Lys Tyr Ala Ala Pro Gly Val Val Cys Arg Asp Leu Gly Gly Ile Cys Asp Leu Pro Glu Tyr Cys Asp 70 75 Gly Lys Lys Glu Glu Cys Pro Asn Asp Ile Tyr Ile Gln Asp Gly Thr 85 90 Pro Cys Ser Ala Val Ser Val Cys Ile Arg Gly Asn Cys Ser Asp Arg 105 100 Asp Met Gln Cys Gln Ala Leu Phe Gly Tyr Gln Val Lys Asp Gly Ser 120 125 Pro Ala Cys Tyr Arg Lys Leu Asn Arg Ile Gly Asn Arg Phe Gly Thr

<210> 792 <211> 242 <212>Amino acid <213> Homo sapiens

<400> 792 Pro Gly Arg Pro Thr Arg Pro Asp Ala Ser Leu Ala Gln Asp Pro Arg 5 10 Thr Thr Met Phe Arg Ile Pro Glu Phe Lys Trp Ser Pro Met His Gln Arg Leu Leu Thr Asp Leu Leu Phe Ala Leu Glu Thr Asp Val His Val 40 Trp Arg Ser His Ser Thr Lys Ser Val Met Asp Phe Val Asn Ser Asn 55 Glu Asn Ile Ile Phe Val His Asn Thr Ile His Leu Ile Ser Gln Met 70 75 Val Asp Asn Ile Ile Ile Ala Cys Gly Gly Ile Leu Pro Leu Leu Ser 85 Ala Ala Thr Ser Pro Thr Gly Ser Lys Thr Glu Leu Glu Asn Ile Glu 100 105 Val Thr Gln Gly Met Ser Ala Glu Thr Ala Val Thr Phe Leu Ser Arg 120 Leu Met Ala Met Val Asp Val Leu Val Phe Ala Ser Ser Leu Asn Phe 135 Ser Glu Ile Glu Ala Glu Lys Asn Met Ser Ser Gly Gly Leu Met Arg 150 155 Gln Cys Leu Lys Leu Val Cys Cys Val Ala Val Arg Asn Cys Leu Glu 170 165 Cys Arg Gln Arg Gln Arg Asp Arg Gly Asn Lys Ser Ser His Gly Ser 180 185 190 Ser Lys Pro Gln Glu Val Pro Gln Ser Val Thr Ala Thr Ala Ala Ser 200 205 Lys Thr Pro Leu Glu Asn Val Pro Gly Asn Leu Ser Pro Ile Lys Asp 215 220 Pro Asp Arg Leu Leu Gln Asp Val Asp Ile Asn Arg Leu Arg Ala Val 230 235 Val Phe

242

<210> 793 <211> 412 <212>Amino acid <213> Homo sapiens

<400> 793

10 Asn Gly Lys Asp His Ser Ile Leu His Ser Arg Asn Asp Leu Glu Glu 20 25 Ala Phe Ile His Phe Met Gly Lys Gly Ala Ala Ala Glu Arg Phe Phe 40 Ser Asp Lys Glu Thr Phe His Asp Ile Ala Gln Val Ala Ser Glu Phe 55 Pro Gly Ala Gln His Tyr Val Gly Gly Asn Ala Ala Leu Ile Gly Gln 70 75 Lys Phe Ala Ala Asn Ser Asp Leu Lys Val Leu Leu Cys Gly Pro Val 8.5 90 Gly Pro Lys Leu His Glu Leu Leu Asp Asp Asn Val Phe Val Pro Pro 105 100 Glu Ser Leu Gln Glu Val Asp Glu Phe His Leu Ile Leu Glu Tyr Gln 120 Ala Gly Glu Glu Trp Gly Gln Leu Lys Ala Pro His Ala Asn Arg Phe 135 Ile Phe Ser His Asp Leu Ser Asn Gly Ala Met Asn Met Leu Glu Val 150 155 Phe Val Ser Ser Leu Glu Glu Phe Gln Pro Asp Leu Gly Gly Leu Ser 165 170 Gly Leu His Met Met Glu Gly Gln Ser Lys Glu Leu Gln Arg Lys Arg 185 Leu Leu Glu Val Val Thr Ser Ile Ser Asp Ile Pro Thr Gly Ile Pro 200 Val His Leu Glu Leu Gly Ser Met Thr Asn Arg Glu Leu Met Ser Ser 215 Ile Val Leu Gln Gln Val Phe Pro Ala Val Thr Ser Leu Gly Leu Asn 230 235 Glu Gln Glu Leu Leu Phe Leu Thr Gln Ser Ala Ser Gly Pro His Ser 250 Ser Leu Ser Ser Trp Asn Gly Val Pro Asp Val Gly Met Val Ser Asp 265 Ile Leu Phe Trp Ile Leu Lys Glu His Gly Arg Ser Lys Ser Arg Ala 280 Ser Asp Leu Thr Arg Ile His Phe His Thr Leu Val Tyr His Ile Leu 295 300 Ala Thr Val Asp Gly His Trp Ala Asn Gln Leu Ala Ala Val Ala Ala 310. 315 Gly Ala Arg Val Ala Gly Thr Gln Ala Cys Ala Thr Glu Thr Ile Asp 325 330 Thr Ser Arg Val Ser Leu Arg Ala Pro Glu Glu Phe Met Thr Ser His 340 345 Ser Glu Ala Gly Ser Arg Ile Val Leu Asn Pro Asn Lys Pro Val Val 360 365 Glu Trp His Arg Glu Gly Ile Ser Phe His Phe Thr Pro Val Leu Val 375 380 Cys Lys Asp Pro Ile Arg Thr Val Gly Leu Gly Asp Ala Ile Ser Ala 390 395 Glu Gly Leu Phe Tyr Ser Glu Val His Pro His Tyr

Ash Ser Ser Gly Val Lys Leu Leu Gln Ala Leu Gly Leu Ser Pro Gly

405 410 412

<210> 794 <211> 83 <212>Amino acid <213> Homo sapiens

<400> 794 Asp Asp Ser Ser Gly Trp Gly Leu Glu Gln Leu Val Val Arg Trp Ser 1 5 15 Leu Ala Leu Trp Pro Arg Leu Glu Cys Ser Gly Met Ile Ser Ala His 20 Cys Asn Leu Cys Leu Leu Gly Ser Ser Asp Ser Pro Ala Ser Ala Pro 35 40 Arg Val Ala Gly Ile Thr Asp Val Cys His His Ala Trp Leu Val Phe 55 Val Phe Leu Val Val Met Gly Phe Pro His Val Gly His Val Gly Leu 70 Glu Leu Leu 83

<210> 795 <211> 391 <212>Amino acid <213> Homo sapiens

<400> 795 Leu Gly Glu Val Leu Lys Cys Gln Gln Gly Val Ser Ser Leu Ala Phe 5 Ala Leu Ala Phe Leu Gln Arg Met Asp Met Lys Pro Leu Val Val Leu 20 Gly Leu Pro Ala Pro Thr Ala Pro Ser Gly Cys Leu Ser Phe Trp Glu Ala Lys Ala Gln Leu Ala Lys Ser Cys Lys Val Leu Val Asp Ala Leu 55 Arg His Asn Ala Ala Ala Val Pro Phe Phe Gly Gly Ser Val 70 Leu Arg Ala Ala Glu Pro Ala Pro His Ala Ser Tyr Gly Gly Ile Val 85 90 Ser Val Glu Thr Asp Leu Leu Gln Trp Cys Leu Glu Ser Gly Ser Ile 105 Pro Ile Leu Cys Pro Ile Gly Glu Thr Ala Ala Arg Arg Ser Val Leu 120 Leu Asp Ser Leu Glu Val Thr Ala Ser Leu Ala Lys Ala Leu Arg Pro 135 Thr Lys Ile Ile Phe Leu Asn Asn Thr Gly Gly Leu Arg Asp Ser Ser 150 155 His Lys Val Leu Ser Asn Val Asn Leu Pro Ala Asp Leu Asp Leu Val 165 170 Cys Asn Ala Glu Trp Val Ser Thr Lys Glu Arg Gln Gln Met Arg Leu 180 185 190 Ile Val Asp Val Leu Ser Arg Leu Pro His His Ser Ser Ala Val Ile 200 Thr Ala Ala Ser Thr Leu Leu Thr Glu Leu Phe Ser Asn Lys Gly Ser

```
210
                 215
                                220
Gly Thr Leu Phe Lys Asn Ala Glu Arg Met Leu Arg Val Arg Ser Leu
     230 235 240
Asp Lys Leu Asp Gln Gly Arg Leu Val Asp Leu Val Asn Ala Ser Phe
          245 250 255
Gly Lys Lys Leu Arg Asp Asp Tyr Leu Ala Ser Leu Arg Pro Arg Leu
        260 265
His Ser Ile Tyr Val Ser Glu Gly Tyr Asn Ala Ala Ala Ile Leu Thr
           280
Met Glu Pro Val Leu Gly Gly Thr Pro Tyr Leu Asp Lys Phe Val Val
 290 .
                295
                                300
Ser Ser Ser Arg Gln Gly Gln Gly Ser Gly Gln Met Leu Trp Glu Cys
305 310 315
Leu Arg Arg Asp Leu Gln Thr Leu Phe Trp Arg Ser Arg Val Thr Asn
          325 330 335
Pro Ile Asn Pro Trp Tyr Phe Lys His Ser Asp Gly Ser Phe Ser Asn
        340 345
Lys Gln Trp Ile Phe Phe Trp Phe Gly Leu Ala Asp Ile Arg Asp Ser
                    360
Tyr Glu Leu Val Asn His Ala Lys Gly Leu Pro Asp Ser Phe His Lys
                 375
                                380
Pro Ala Ser Asp Pro Gly Ser
            390 391
```

<210> 796 <211> 127

<212>Amino acid <213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(127)

<223> X = any amino acid or stop code

<400> 796 Tyr His Ala Pro Ala Leu Gln Pro Gly Gln Gln Ser Lys Thr Leu Ser 10 Gln Glu Lys Lys Asn Phe Phe Arg Pro Gly Ala Val Ala His Thr Cys 20 25 Asn Pro Ser Thr Leu Gly Gly Arg Gly Gly Arg Ile Thr Arg Ser Gly 40 Asp Arg Asp His Pro Gly Xaa His Gly Glu Thr Pro Ser Leu Leu Lys 55 Ile Gln Lys Lys Leu Ala Gly Arg Asp Gly Gly Arg Leu Xaa Ser Gln 70 75 Leu Leu Gly Arg Leu Arg Gln Glu Asn Gly Val Asn Pro Gly Gly Gly 85 Gly Cys Ser Glu Pro Arg Leu Arg His Cys Thr Pro Ala Trp Xaa Gln 100 105 110 Ser Glu Thr Ile Ser Arg Lys Lys Arg Lys Lys Glu Arg Lys Tyr 120

<210> 797 <211> 159 <212>Amino acid <213> Homo sapiens

<400> 797 Phe Arg Pro Ile Gly Ile Ile Arg Gln Ala Leu Cys Ser Ala Asp Gly His Gln Arg Arg Ile Leu Thr Leu Arg Leu Gly Leu Leu Val Ile Pro 25 Phe Leu Pro Ala Ser Asn Leu Phe Phe Arg Val Gly Phe Val Val Pro 40 Ser Val Gly Cys Cys Val Met Leu Leu Phe Gly Phe Gly Ala Leu Arg 55 Lys His Thr Glu Lys Lys Lys Leu Ile Ala Ala Val Val Leu Gly Ile 70 75 Leu Leu Ser Asn Asp Ala Glu Arg Leu Arg Cys Ala Val Arg Gly Gly 90 Glu Trp Arg Ser Glu Glu Ala Val Phe Arg Gly Ala Val Ser Val Cys 105 Pro Leu Ser Ala Glu Val Arg Cys Asn Ile Gly Arg Asn Leu Ala Ala 120 Lys Gly Asn Gln Thr Gly Ala Ile Arg Tyr His Arg Glu Ala Val Ser 140 130 135 Leu Asn Pro Lys Thr Lys Ser Ser Thr Arg Glu Phe Arg Pro Cys 150

<210> 798 <211> 236 <212>Amino acid <213> Homo sapiens

<400> 798 Lys Ile Ala Asp Phe Gly Phe Ser Asn Leu Phe Thr Pro Gly Gln Leu 10 Leu Lys Thr Trp Cys Gly Ser Pro Pro Tyr Ala Ala Pro Glu Leu Phe 25 Glu Gly Lys Glu Tyr Asp Gly Pro Lys Val Asp Ile Trp Ser Leu Gly 40 Val Val Leu Tyr Val Leu Val Cys Gly Ala Leu Pro Phe Asp Gly Ser 55 Thr Leu Gln Asn Leu Arg Ala Arg Val Leu Ser Gly Lys Phe Arg Ile 70 75 Pro Phe Phe Met Ser Thr Glu Cys Glu His Leu Ile Arg His Met Leu 85 90 Val Leu Asp Pro Asn Lys Arg Leu Ser Met Glu Gln Ile Cys Lys His 105 Lys Trp Met Lys Leu Gly Asp Ala Asp Pro Asn Phe Asp Arg Leu Ile 120 Ala Glu Cys Gln Gln Leu Lys Glu Glu Arg Gln Val Asp Pro Leu Asn 135 140 Glu Asp Val Leu Leu Ala Met Glu Asp Met Gly Leu Asp Lys Glu Gln 150 155 Thr Leu Gln Ser Leu Arg Ser Asp Ala Tyr Asp His Tyr Ser Ala Ile 170 Tyr Ser Leu Leu Cys Asp Arg His Lys Arg His Lys Thr Leu Arg Leu 185 Gly Ala Leu Pro Ser Met Pro Arg Ala Leu Gly Leu Ser Ser Thr Ser 200 205 Gln Tyr Pro Ala Glu Gln Ala Gly Thr Ala Met Asn Ile Ser Val Pro 210 215

Gln Val Gln Leu Ile Asn Pro Glu Asn Gln Ile Val 225 230 235 236

<210> 799 <211> 114 <212>Amino acid <213> Homo sapiens

<220> <221> misc_feature

<222> (1)...(114)

<223> X = any amino acid or stop code

<400> 799

Asp Val

<210> 800

<211> 328 <212>Amino acid

<213> Homo sapiens

<220>

<221> misc_feature

<222> (1) ... (328)

<223> X = any amino acid or stop code

<400> 800

Ala Val Ala Ser Ser Thr Asp Gly Ser Ile His Thr Asp Ser Val Asp 105 Gly Thr Pro Asp Pro Gln Arg Thr Lys Ala Ala Ile Ala His Leu Gln 120 Gln Lys Ile Leu Lys Leu Thr Glu Gln Ile Lys Ile Ala Gln Thr Ala 135 140 Arg Arg Asn Arg Arg Pro Gly Ser Kaa Lys Asp Cys Thr Pro Kaa Lys 150 155 Cys Leu Arg Lys Ser Asp Glu Ala Leu Asn Arg Val Leu Gln Gln Ile 165 170 Arg Val Pro .Pro Lys Met Lys Arg Gly Thr Ser Leu His Ser Arg Arg 185 Gly Lys Pro Glu Ala Pro Lys Gly Ser Pro Gln Ile Asn Arg Lys Ser 200 Glv Glm Glu Met Thr Ala Val Met Gln Ser Glv Arg Pro Arg Ser Ser 215 220 Ser Thr Thr Asp Ala Pro Thr Gly Ser Ala Met Met Glu Ile Ala Cys 230 235 Ala Ala Ala Ala Ala Ala Ala Ala Cys Leu Pro Gly Glu Glu Gly Thr 245 250 Ala Glu Arg Ile Glu Arg Leu Glu Val Ser Ser Leu Ala Gln Thr Ser 260 265 Ser Ala Val Ala Ser Ser Thr Asp Gly Ser Ile His Thr Asp Ser Val 275 280 Asp Gly Thr Pro Asp Pro Gln Arg Thr Lys Ala Ala Ile Ala His Leu 295 300 Gln Gln Lys Ile Leu Lys Leu Thr Glu Gln Ile Lys Ile Ala Gln Thr 310 315 Ala Arg Arg Asn Arg Arg Pro Gly 325

<210> 801 <211> 356 <212>Amino acid <213> Homo sapiens

<400> 801 Met Gln Thr Ile Glu Arg Leu Val Lys Glu Arg Asp Asp Leu Met Ser 10 Ala Leu Val Ser Val Arg Ser Ser Leu Ala Asp Thr Gln Gln Arg Glu Ala Ser Ala Tyr Glu Gln Val Lys Gln Val Leu Gln Ile Ser Glu Glu 40 Ala Asn Phe Glu Lys Thr Lys Ala Leu Ile Gln Cys Asp Gln Leu Arg 55 Lys Glu Leu Glu Arg Gln Ala Glu Arg Leu Glu Lys Glu Leu Ala Ser 70 75 Gln Gln Glu Lys Arg Ala Ile Glu Lys Asp Met Met Lys Lys Glu Ile 90 Thr Lys Glu Arg Glu Tyr Met Gly Ser Lys Met Leu Ile Leu Ser Gln 100 105 Asn Ile Ala Gln Leu Glu Ala Gln Val Glu Lys Val Thr Lys Glu Lys 120 Ile Ser Ala Ile Asn Gln Leu Glu Glu Ile Gln Ser Gln Leu Ala Ser 135 140 Arg Glu Met Asp Val Thr Lys Val Cys Gly Glu Met Arg Tyr Gln Leu 150 155 Asn Lys Thr Asn Met Glu Lys Asp Glu Ala Glu Lys Glu His Arg Glu

Phe Arg Ala Lys Thr Asn Arg Asp Leu Glu Ile Lys Asp Gln Glu Ile 180 185 Glu Lys Leu Arg Ile Glu Leu Asp Glu Ser Lys Gln His Leu Glu Gln 195 200 Glu Gln Gln Lys Ala Ala Leu Ala Arg Glu Glu Cys Leu Arg Leu Thr 215 220 Glu Leu Leu Gly Glu Ser Glu His Gln Leu His Leu Thr Arg Gln Glu 230 235 Lys Asp Ser Ile Gln Gln Ser Phe Ser Lys Glu Ala Lys Ala Gln Ala 245 250 Leu Gln Ala Gln Gln Arg Glu Gln Glu Leu Thr Gln Lys Ile Gln Gln 260 265 Met Glu Ala Gln His Asp Lys Thr Glu Asn Glu Gln Tyr Leu Leu Leu 280 Thr Ser Gln Asn Thr Phe Leu Thr Lys Leu Lys Glu Glu Cys Cys Thr 295 300 Leu Ala Lys Lys Leu Glu Gln Ile Ser Gln Lys Thr Arg Ser Glu Ile 310 315 Ala Gln Leu Ser Gln Glu Lys Arg Tyr Thr Tyr Asp Lys Leu Gly Lys 325 330 335 Leu Gln Arg Arg Asn Glu Glu Leu Glu Glu Gln Cys Val Gln His Gly 345 Arg Ser Thr *

355

210

<210> 802 <211> 210 <212>Amino acid <213> Homo sapiens

<400> 802 Ser Tyr Pro Val Trp Trp Asn Ser Pro Leu Thr Ala Glu Val Pro Pro 10 Glu Leu Leu Ala Ala Gly Phe Phe His Thr Gly His Gln Asp Lys 20 25 Val Arg Cys Phe Phe Cys Tyr Gly Gly Leu Gln Ser Trp Lys Arg Gly 40 Asp Asp Pro Trp Thr Glu His Ala Lys Trp Phe Pro Ser Cys Gln Phe 55 Leu Leu Arg Ser Lys Gly Arg Asp Phe Val His Ser Val Gln Glu Thr 70 75 His Ser Gln Leu Leu Gly Ser Trp Asp Pro Trp Glu Glu Pro Glu Asp 85 90 Ala Ala Pro Val Ala Pro Ser Val Pro Ala Ser Gly Tyr Pro Glu Leu 100 105 Pro Thr Pro Arg Arg Glu Val Gln Ser Glu Ser Ala Gln Glu Pro Gly 120 Gly Val Ser Pro Ala Glu Ala Gln Arg Ala Trp Trp Val Leu Glu Pro 135 140 Pro Gly Ala Arg Asp Val Glu Ala Gln Leu Arg Arg Leu Gln Glu Glu 150 155 Arg Thr Cys Lys Val Cys Leu Asp Arg Ala Val Ser Ile Val Phe Val 165 170 Pro Cys Gly His Leu Val Cys Ala Glu Cys Ala Pro Gly Leu Gln Leu 185 Cys Pro Ile Cys Arg Ser Pro Cys Gly Pro Leu Arg Pro Cys Leu Trp 200 Val Pro

<210> 803 <211> 130 <212>Amino acid <213> Homo sapiens

<210> 804 <211> 458 <212>Amino acid <213> Homo sapiens

165

129

<400> 804 Lys Gln Leu Ile Val Leu Gly Asn Lys Val Asp Leu Leu Pro Gln Asp 10 Ala Pro Gly Tyr Arg Gln Arg Leu Arg Glu Arg Leu Trp Glu Asp Cys Ala Arg Ala Gly Leu Leu Ala Pro Gly His Gln Gly Pro Gln Arg Pro Val Lys Asp Glu Pro Gln Asp Gly Glu Asn Pro Asn Pro Pro Asn 55 Trp Ser Arg Thr Val Val Arg Asp Val Arg Leu Ile Ser Ala Lys Thr 70 75 Gly Tyr Gly Val Glu Glu Leu Ile Ser Ala Leu Gln Arg Ser Trp Arg 90 Tyr Arg Gly Asp Val Tyr Leu Val Gly Ala Thr Asn Ala Gly Lys Ser 100 105 Thr Leu Phe Asn Thr Leu Leu Glu Ser Asp Tyr Cys Thr Ala Lys Gly 120 Ser Glu Ala Ile Asp Arg Ala Thr Ile Ser Pro Trp Pro Gly Thr Thr 135 Leu Asn Leu Leu Lys Phe Pro Ile Cys Asn Pro Thr Pro Tyr Arg Met 150 155 Phe Lys Arg His Gln Arg Leu Lys Lys Asp Ser Thr Gln Ala Glu Glu

Asp Leu Ser Glu Gln Glu Gln Asn Gln Leu Asn Val Leu Lys Lys His 185 Gly Tyr Val Val Gly Arg Val Gly Arg Thr Phe Leu Tyr Ser Glu Glu 200 Gln Lys Asp Asn Ile Pro Phe Glu Phe Asp Ala Asp Ser Leu Ala Phe 215 Asp Met Glu Asn Asp Pro Val Met Gly Thr His Lys Ser Thr Lys Gln 230 235 Val Glu Leu Thr Ala Gln Asp Val Lys Asp Ala His Trp Phe Tyr Asp 245 250 255 Thr Pro Gly. Ile Thr Lys Glu Asn Cys Ile Leu Asn Leu Leu Thr Glu 260 265 Lys Glu Val Asn Ile Val Leu Pro Thr Gln Ser Ile Val Pro Arg Thr 280 Phe Val Leu Lys Pro Gly Met Val Leu Phe Leu Gly Ala Ile Gly Arg 295 300 Ile Asp Phe Leu Gln Gly Asn Gln Ser Ala Trp Phe Thr Val Val Ala 310 315 Ser Asn Ile Leu Pro Val His Ile Thr Ser Leu Asp Arg Ala Asp Ala 330 335 Leu Tyr Gln Lys His Ala Gly His Thr Leu Leu Gln Ile Pro Met Gly 340 345 350 Gly Lys Glu Arg Met Ala Gly Phe Pro Pro Leu Val Ala Glu Asp Ile 360 Met Leu Lys Glu Gly Leu Gly Ala Ser Glu Ala Val Ala Asp Ile Lys 370 375 380 Phe Ser Ser Ala Gly Trp Val Ser Val Thr Pro Asn Phe Lys Asp Arg 390 395 Leu His Leu Arg Gly Tyr Thr Pro Glu Gly Thr Val Leu Thr Val Arg 405 410 Pro Pro Leu Leu Pro Tyr Ile Val Asn Ile Lys Gly Gln Arg Ile Lys 425 Lys Ser Val Ala Tyr Lys Thr Lys Lys Pro Pro Ser Leu Met Tyr Asn 440 Val Arg Lys Lys Gly Lys Ile Asn Val 455

<210> 805 <211> 290 <212>Amino aciâ <213> Homo sapiens

<400> 805 Ser Thr Val Ala Ser Met Met His Arg Gln Glu Thr Val Glu Cys Leu 5 Arg Lys Phe Asn Ala Arg Arg Lys Leu Lys Gly Ala Ile Leu Thr Thr 20 2.5 Met Leu Val Ser Arg Asn Phe Ser Ala Ala Lys Ser Leu Leu Asn Lys 40 Lys Ser Asp Gly Gly Val Lys Pro Gln Ser Asn Asn Lys Asn Ser Leu 55 60 Val Ser Pro Ala Gln Glu Pro Ala Pro Leu Gln Thr Ala Met Glu Pro 70 75 Gln Thr Thr Val Val His Asn Ala Thr Asp Gly Ile Lys Gly Ser Thr 85 9.0 Glu Ser Cys Asn Thr Thr Thr Glu Asp Glu Asp Leu Lys Ala Ala Pro 105 Leu Arg Thr Gly Asn Gly Ser Ser Val Pro Glu Gly Arg Ser Ser Arg 115 120 125

Asp Arg Thr Ala Pro Ser Ala Gly Met Gln Pro Gln Pro Ser Leu Cys 135 Ser Ser Ala Met Arg Lys Gln Glu Ile Ile Lys Ile Thr Glu Gln Leu 150 155 Ile Glu Ala Ile Asn Asn Gly Asp Phe Glu Ala Tyr Thr Lys Ile Cys 170 Asp Pro Gly Leu Thr Ser Phe Glu Pro Glu Ala Leu Gly Asn Leu Val 185 Glu Gly Met Asp Phe His Lys Phe Tyr Phe Glu Asn Leu Leu Ser Lys 200 Asn Ser Lys Pro Ile His Thr Thr Ile Leu Asn Pro His Val His Val 215 Ile Gly Glu Asp Ala Ala Cys Ile Ala Tyr Ile Arg Leu Thr Gln Tyr 235 230 Ile Asp Gly Gln Gly Arg Pro Ser Asn Pro Ala Lys Ser Glu Glu Thr 245 250 Arg Val Trp His Arg Arg Asp Gly Lys Trp Leu Asn Val His Tyr His 265 Cys Ser Gly Ala Pro Cys Pro His Arg Cys Ser Glu Leu Ser His Arg 280 Gly Phe

290

<210> 806 <211> 570 <212>Amino acid <213> Homo sapiens

<400> 806

Leu Pro Lys Asn Val Val Phe Val Leu Asp Ser Ser Ala Ser Met Val Gly Thr Lys Leu Arg Gln Thr Lys Asp Ala Leu Phe Thr Ile Leu His Asp Leu Arg Pro Gln Asp Arg Phe Ser Ile Ile Gly Phe Ser Asn Arg Ile Lys Val Trp Lys Asp His Leu Ile Ser Val Thr Pro Asp Ser Ile Arg Asp Gly Lys Val Tyr Ile His His Met Ser Pro Thr Gly Gly Thr Asp Ile Asn Gly Ala Leu Gln Arg Ala Ile Arg Leu Leu Asn Lys Tyr 85 90 Val Ala His Ser Gly Ile Gly Asp Arg Arg Val Ser Leu Ile Val Phe 105 Leu Thr Asp Gly Lys Pro Thr Val Gly Glu Thr His Thr Leu Lys Ile 120 Leu Asn Asn Thr Arg Glu Ala Ala Arg Gly Gln Val Cys Ile Phe Thr 135 Ile Gly Ile Gly Asn Asp Val Asp Phe Arg Leu Leu Glu Lys Leu Ser 150 155 Leu Glu Asn Cys Gly Leu Thr Arg Arg Val His Glu Glu Glu Asp Ala 170 Gly Ser Gln Leu Ile Gly Phe Tyr Asp Glu Ile Arg Thr Pro Leu Leu 185 Ser Asp Ile Arg Ile Asp Tyr Pro Pro Ser Ser Val Val Gln Ala Thr 200 Lys Thr Leu Phe Pro Asn Tyr Phe Asn Gly Ser Glu Ile Ile Ile Ala 215 220 Gly Lys Leu Val Asp Arg Lys Leu Asp His Leu His Val Glu Val Thr 230 235

Ala Ser Asn Ser Lys Lys Phe Ile Ile Leu Lys Thr Asp Val Pro Val 250 Arg Pro Gln Lys Ala Gly Lys Asp Val Thr Gly Ser Pro Arg Pro Gly 260 265 Gly Asp Gly Glu Gly Asp Thr Asn His Ile Glu Arg Leu Trp Ser Tyr 280 Leu Thr Thr Lys Glu Leu Leu Ser Ser Trp Leu Gln Ser Asp Asp Glu 295 300 Pro Glu Lys Glu Arg Leu Arg Gln Arg Ala Gln Ala Leu Ala Val Ser 310 315 Tyr Arg Phe Leu Thr Pro Phe Thr Ser Met Lys Leu Arg Gly Pro Val 325 330 Pro Arg Met Asp Gly Leu Glu Glu Ala His Gly Met Ser Ala Ala Met 345 Gly Pro Glu Pro Val Val Gln Ser Val Arg Gly Ala Gly Thr Gln Pro 360 Gly Pro Leu Leu Lys Lys Pro Tyr Gln Pro Arg Ile Lys Ile Ser Lys 375 380 Thr Ser Val Asp Gly Asp Pro His Phe Val Val Asp Phe Pro Leu Ser 390 395 Arg Leu Thr Val Cys Phe Asn Ile Asp Gly Gln Pro Gly Asp Ile Leu 405 410 Arg Leu Val Ser Asp His Arg Asp Ser Gly Val Thr Val Asn Gly Glu 420 425 Leu Ile Gly Ala Pro Ala Pro Pro Asn Gly His Lys Lys Gln Arg Thr 440 445 Tyr Leu Arg Thr Ile Thr Ile Leu Ile Asn Lys Pro Glu Arg Ser Tyr 455 460 Leu Glu Ile Thr Pro Ser Arg Val Ile Leu Asp Gly Gly Asp Arg Leu 470 475 Val Leu Pro Cys Asn Gln Ser Val Val Val Gly Ser Trp Gly Leu Glu 485 490 Val Ser Val Ser Ala Asn Ala Asn Val Thr Val Thr Ile Gln Gly Ser 500 505 Ile Ala Phe Val Ile Leu Ile His Leu Tyr Lys Lys Pro Ala Pro Phe 515 520 Gln Arg His His Leu Gly Phe Tyr Ile Ala Asn Ser Glu Gly Leu Ser 530 535 Ser Asn Cys Arg Val Phe Cys Glu Ser Gly Ile Leu Ile Gln Glu Leu 550 Thr Gln Gln Ser Val Ala Val Ala Gly Arg 565

<210> 807 <211> 279 <212>Amino acid <213> Homo sapiens

Gly Gln Ser Tyr Lys Pro Val Pro Ala Ile Gln Thr Gln Lys Leu Asn 90 Pro Lys Gly Gly Thr Leu His Ala Asp Ala Gln Leu Tyr Ala Asp Arg 105 Phe Gln Lys His Gly Met Asp Glu Phe Ile Ser Ala Asn Pro Cys Lys 115 120 Leu Asp His Ala Phe Leu Phe Arg Ile Leu Gln Arg Gln Thr Leu Asp 135 140 His Arg Leu Asn Asp Ser Tyr Ser Cys Leu Gly Trp Phe Ser Pro Gly 150 155 Gln Val Phe .Val Leu Asp Glu Tyr Cys Ala Arg Tyr Gly Val Arg Gly 165 170 Cys His Arg His Leu Cys Tyr Leu Ala Glu Leu Met Glu His Ser Glu 185 Asn Gly Ala Val Ile Asp Pro Thr Leu Leu His Tyr Ser Phe Ala Phe 200 Cys Ala Ser His Val His Gly Asn Arg Pro Asp Gly Ile Gly Thr Val 215 220 Ser Val Glu Glu Lys Glu Arg Phe Glu Glu Ile Lys Glu Arg Leu Ser 230 235 Ser Leu Leu Glu Asn Gln Ile Ser His Phe Arg Tyr Cys Phe Pro Phe 250 Gly Arg Pro Glu Gly Ala Leu Lys Ala Thr Leu Ser Leu Leu Glu Arg 260 265 Val Leu Met Lys Asp Ile Ala

<210> 808 <211> 251

<212>Amino acid

<213> Homo sapiens

<220>

<221> misc_feature

<222> (1)...(251)

<223> X = any amino acid or stop code

<400> 808

Asp Gly Leu Leu His Glu Val Leu Asn Gly Leu Leu Asp Arg Pro Asp 10 Trp Glu Glu Ala Val Lys Met Pro Val Gly Ile Leu Pro Cys Gly Ser Gly Asn Ala Leu Ala Gly Ala Val Asn Gln His Gly Gly Phe Glu Pro 40 Ala Leu Gly Leu Asp Leu Leu Leu Asn Cys Ser Leu Leu Leu Cys Arg 55 Gly Gly Gly His Pro Leu Asp Leu Leu Ser Val Thr Leu Ala Ser Gly 70 75 Ser Arg Cys Phe Ser Phe Leu Ser Val Ala Trp Gly Phe Val Ser Asp 85 90 Val Asp Ile Gln Ser Glu Arg Phe Arg Ala Leu Gly Ser Ala Arg Phe 100 105 Thr Leu Gly Thr Val Leu Gly Leu Ala Thr Leu His Thr Tyr Arg Gly 120 Arg Leu Ser Tyr Leu Pro Ala Thr Val Glu Pro Ala Ser Pro Thr Pro 135 140 Ala His Ser Leu Pro Arg Ala Lys Ser Glu Leu Thr Leu Thr Pro Asp 150 155 Pro Ala Pro Pro Met Ala His Ser Pro Leu His Arg Ser Val Ser Asp

<210> 809 <211> 174 <212>Amino acid <213> Homo sapiens

<400> 809 Lys Gly Val Pro Thr Leu Leu Met Ala Ala Gly Ser Phe Tyr Asp Ile 1 5 1.0 Leu Ala Ile Thr Gly Phe Asn Thr Cys Leu Gly Ile Ala Phe Ser Thr 25 Gly Ser Thr Val Phe Asn Val Leu Arg Gly Val Leu Glu Val Val Ile 40 Gly Val Ala Thr Gly Ser Val Leu Gly Phe Phe Ile Gln Tyr Phe Pro 55 Ser Arg Asp Gln Asp Lys Leu Val Cys Lys Arg Thr Phe Leu Val Leu 75 70 Gly Leu Ser Val Leu Ala Val Phe Ser Ser Val His Phe Gly Phe Pro 90 Gly Ser Gly Gly Leu Cys Thr Leu Val Met Ala Phe Leu Ala Gly Met 100 105 110 Gly Trp Thr Ser Glu Lys Ala Glu Val Glu Lys Ile Ile Ala Val Ala 120 125 Trp Asp Ile Phe Gln Pro Leu Leu Phe Gly Leu Ile Gly Ala Glu Val 130 135 140 Ser Ile Ser Ser Leu Arg Pro Glu Thr Val Gly Leu Cys Val Ala Thr 150 155 Val Gly Ile Ala Val Leu Ile Arg Ile Phe Asp Tyr Ile Phe 170

<210> 810 <211> 104

<212>Amino acid

<213> Homo sapiens

<400> 81

<210> 811 <211> 77 <212>Amino acid <213> Homo sapiens

<210> 812 <211> 194 <212>Amino acid <213> Homo sapiens

<400> 812 Leu Glu Ser Leu Pro Gly Phe Lys Glu Ile Val Ser Arg Gly Val Lys 5 Val Asp Tyr Leu Thr Pro Asp Phe Pro Ser Leu Ser Tyr Pro Asn Tyr 25 Tyr Thr Leu Met Thr Gly Arg His Cys Glu Val His Gln Met Ile Gly 40 Asn Tyr Met Trp Asp Pro Thr Thr Asn Lys Ser Phe Asp Ile Gly Val 55 Asn Lys Asp Ser Leu Met Pro Leu Trp Trp Asn Gly Ser Glu Pro Leu 75 Trp Val Thr Leu Thr Lys Ala Lys Arg Lys Val Tyr Met Tyr Tyr Trp 90 Pro Gly Cys Glu Val Glu Ile Leu Gly Val Arg Pro Thr Tyr Cys Leu 105 Glu Tyr Lys Asn Val Pro Thr Asp Ile Asn Phe Ala Asn Ala Val Ser 120 Asp Ala Leu Asp Ser Phe Lys Ser Gly Arg Ala Asp Leu Ala Ala Ile 135 Tyr His Glu Arg Ile Asp Val Glu Gly His His Tyr Gly Pro Ala Ser 150 155 Pro Gln Arg Lys Asp Ala Leu Lys Ala Val Asp Thr Val Leu Lys Tyr 165 170 Met Thr Lys Trp Ile Gln Glu Arg Gly Leu Gln Asp Arg Leu Asn Val

180 185 190 Ile Ile 194

<210> 813 <211> 116

<212>Amino acid <213> Homo sapiens

<220> . <221> misc_feature

<222> (1)...(116) <223> X = any amino acid or stop code

<400> 813 Ala Arg Asp Phe His Pro Lys Gln Thr Leu Asp Phe Leu Arg Ser Asp 10 Met Ala Asn Ser Lys Ile Thr Glu Glu Val Lys Arg Ser Ile Ala Gln 20 25 Gln Tyr Leu Asp Leu Thr Val Ala Leu Glu Gln Val Asp Pro Asp Ala 40 Glu Val Asp Ala Ala Pro Ser Thr Thr Ser Ser Cys Gly His Xaa Asp 55 60 Ser His Ala Gly Ser Xaa Arg Val Leu Ser Leu Leu Gly Asp Xaa Gly 70 75 Pro Ala Xaa Thr Gly Ala Asn Ser Met Ala Gly Lys Leu Leu Leu Val 85 90 Ala Trp Leu Gly Phe Pro Asp Pro Phe Trp Gly Lys Glu Leu Ser Asp 100 1.05

Pro Ala Phe Lys 115 116

> <210> 814 <211> 121 <212>Amino acid <213> Homo sapiens

<220>
<221> misc_feature
<222> (1) ... (121)
<223> X = any amino acid or stop code

100 #### 100 ### 100 #### 100 #### 100 #### 100 ### 100 ### 100 #### 100 ### 100 ### 100 ### 100

<400> 815

<210 > 816
<211> 130
<212-Amino acid
<213 > Homo sapiens
<220>
<221> misc_feature
<222> (1) ... (130)
<223 > X = any amino acid or stop code

<400> 817

115

Phe Arg Ala Met Phe Leu Ala Val Gln His Asp Cys Arg Pro Met Asp 10 Lys Ser Ala Gly Ser Gly His Lys Ser Glu Glu Lys Arg Glu Lys Met 2.0 25 Lys Arg Thr Leu Leu Lys Asp Trp Lys Thr Arg Leu Ser Tyr Phe Leu 40 Gln Asn Ser Ser Thr Pro Gly Lys Pro Lys Thr Gly Lys Lys Ser Lys 55 60 Gln Gln Ala Phe Ile Lys Xaa Val Glu Asn Pro Glu Leu Ala Asn Ile 70 75 Asn Ser Xaa Leu Leu Asn Xaa Lys Gly Glu Leu Xaa Xaa Ala Xaa Ala 85 90 Asn Ile Gln Asn Leu Ser Cys Arg Pro Ser Pro Glu Glu Ala Gln Leu 100 105 Trp Ser Glu Ala Phe Asp Glu

119

75 Ser Ser Pro Lys Leu Lys Gly Trp Lys Ile Asn Ser Ser Leu Val Leu 85 90 Glu Ile Arg Lys Asn Ile Leu Arg Phe Leu Asp Ala Glu Arg Asp Val 100 105 110 Ser Val Val Lys Ser Ser Phe Pro Ser Lys Asp Ala Arg His Ser Ser 720 Val His Arg 130 131 <210> 819 <211> 85 <212>Amino acid <213> Homo sapiens <220> <221> misc feature <222> (1)...(85) <223> X = any amino acid or stop code

<400> 819

<210> 820 <211> 44 <212>Amino acid <213> Homo sapiens <220> <221> misc_feature <222> (1)...(44)

< 400> 820 ser Ser Lys Pro Trp Asp Xaa Ser Leu Ala Pro Lys His Ser Gly Xaa $_1$ $_1$ $_5$ $_10$ $_15$ Thr Lys Asn Met Asp Cys Tyr Cys Ile Ile Pro Thr Cys Ile Gly Arg $_20$ $_25$ $_30$ $_30$

Glu Arg Cys Tyr Gly Thr Cys Ile Gly Asp Thr Val 35 40 44

<223> X = any amino acid or stop code

<210> 821

<211> 105
<212>Amino acid
<213> Homo sapiens
<220>
<221> misc_feature
<222> (1)...(105)
<223> X = any amino acid or stop code

<400> 821

<210 > 822
<211 > 172
<212 > Amino acid
<213 > Homo sapiens
<220 >
<221 misc_feature
<222 (1) ... (172)
<223 × 2 a my amino acid or stop code</pre>

<400> 822 Lys Trp Met Leu Leu His Ser Phe Lys Ile Phe Cys Leu Ser Leu Tyr 5 10 Pro Gln Leu Xaa Cys Pro Phe Glu Phe Phe Ser His Ser Ala Thr Ile Phe His Glu Leu Val Tyr Lys Gln Thr Lys Ile Ile Ser Ser Asn Gln Glu Leu Ile Tyr Glu Gly Arg Arg Leu Val Leu Glu Pro Gly Arg Leu Ala Gln His Phe Pro Lys Thr Thr Glu Glu Asn Pro Ile Phe Val Val 70 Ser Arg Glu Pro Leu Asn Thr Ile Gly Leu Ile Tyr Glu Lys Ile Ser 90 Leu Pro Lys Val His Pro Arg Tyr Asp Leu Asp Gly Asp Ala Ser Met 100 105 Ala Lys Ala Ile Thr Gly Val Val Cys Tyr Ala Cys Arg Ile Ala Ser 120 Thr Leu Leu Tyr Gln Glu Leu Met Arg Lys Gly Ile Arg Trp Leu

130 135 140

Ile Glu Leu Ile Lys Asp Asp Tyr Asn Glu Thr Val His Lys Lys Thr

160

145 150 155 Glu Val Val Ile Thr Leu Gly Phe Leu Val Ser Arg 165 170 170

<210> 823 <211> 104

<212>Amino acid

<213> Homo sapiens

<220> .

<221> misc_feature

<222> (1) ... (104)

<223> X = any amino acid or stop code

<400> 823

Gly Thr Arg Lys Met Gly Pro Thr Val Ser Pro Ile Cys Leu Pro Gly 10 Thr Trp Gly Asp Tyr Asn Leu Met Asp Gly Asp Leu Gly Leu Ile Ser 20 25 Gly Trp Gly Arg Thr Glu Lys Arg Asp Arg Ala Asp Arg Leu Lys Ala 40 Gly Arg Ser Pro Ala Ala Gly Xaa Arg Lys Trp Glu Pro Gly Arg Gly 55 60 Asp Pro Thr Trp Glu Glu Ser Glu Glu Asp Val His Lys Ser Lys Trp 70 75 Thr Arg Cys Val Asp Glu Lys Gly Ala Xaa Cys Xaa Thr Asp Asn Lys 90 85

Arg Pro Leu Arg Cys Gly Val Thr 100 104

<210> 824

<211> 99

<212>Amino acid <213> Homo sapiens

<220>

<221> misc feature

<222> (1) ... (99)

<223> X = any amino acid or stop code

<400> 824

99

<210> 825 <211> 111 <212>Amino acid <213> Homo sapiens

<220> <221> misc feature

<222> (1)...(111) <223> X = any amino acid or stop code

<400> 825 Pro Val Pro Leu Pro His Pro Ile Leu Glu Val Cys Pro Gly Gln Xaa 5 10 Glu Pro Gln Ser Ala Ile Ser Leu Thr Ala Phe Gln Val Gln Ala Gly 20 25 Ala Ser Arg Ala Ser Pro Gly Pro Pro Ala Pro Ser Ser Ser Lys Pro 35 40 Gly Arg Lys Ala Lys Val Ala Ser Pro Cys Pro Asp Arg Pro Ala Pro 55 Pro Pro Thr Xaa Pro Arg Pro Ala Ala Ala Pro Gly Ser Glu Ser Ser 70 75 Pro Arg Pro Pro Arg Pro Arg Thr Gly Arg Arg Gln Gln Arg Ala His 85 90 Ala Arg Arg Ala Ala Ala Arg Thr Ala Pro Trp Arg Pro Ser Cys 100 105

<210> 826 <211> 95 <212>Amino acid <213> Homo sapiens

<400> 826 His Glu Gly Arg Arg Gly Trp Ala Ser Ala Ser Gln Arg Phe Leu 10 Arg Asn Trp Ala Phe Leu Thr Pro Ser Lys Val Arg Arg Leu Lys Gly 20 25 30 Gln Lys Ala Phe Gly Lys Leu Pro Ser His Ser Asp Thr Ser Leu Thr 40 45 Ser Asp Leu Gly Phe His His Arg Phe Asn Pro Asn Ala Ser Ser Ser 55 60 Phe Lys Pro Ser Gly Thr Lys Phe Ala Ile Gln Tyr Gly Thr Gly Arg 70 75 Val Asp Gly Ile Leu Ser Glu Asp Lys Leu Thr Val Ser Gly Leu 85

<210> 827 <211> 33 <212>Amino acid <213> Homo sapiens

<220>

<221> misc_feature <222> (1)...(33) <223> X = any amino acid or stop code

 $^{\rm 4400}$ 827 GJy Arg Asn Ile Met His Tyr Pro Asn GJy His Ala Ile Cys Ile Ala 1 10 15 15 Asn GJy His Cys Ile Ile Leu Xaa Asn Ser His Asn Ile Lys Val Trp Val 20 25 30 33

<210> 828 <211> 178 <212>Amino acid <213> Homo sapiens

<220> <221> misc_feature <222> (1)...(178)

<223> X = any amino acid or stop code

<400> 828 Ile Asn Leu Gly Asn Thr Cys Tyr Met Asn Ser Val Ile Xaa Ala Leu 10 5 Phe Met Ala Thr Asp Phe Arg Arg Gln Val Leu Ser Leu Asn Leu Asn 20 25 30 Gly Cys Asn Ser Leu Met Lys Lys Leu Gln His Leu Phe Ala Phe Leu 40 45 Ala His Thr Gln Arg Glu Ala Tyr Ala Pro Arg Ile Phe Phe Glu Ala 55 60 Ser Arg Pro Pro Trp Phe Thr Pro Arg Ser Gln Gln Asp Cys Ser Glu 70 75 Tyr Leu Arg Phe Leu Leu Asp Arg Leu His Glu Glu Glu Lys Ile Leu 85 90 Lys Val Gln Ala Ser His Lys Pro Ser Glu Ile Leu Glu Cys Ser Glu 105 Thr Ser Leu Gln Glu Val Ala Ser Lys Ala Ala Val Leu Thr Glu Thr 120 Pro Arg Thr Ser Asp Gly Glu Lys Thr Leu Ile Glu Lys Met Phe Gly 135 140 Gly Lys Leu Arg Thr His Ile Arg Cys Leu Asn Cys Thr Ser Thr Ser 150 155 Gln Lys Val Glu Ala Phe Thr Asp Leu Ser Leu Ala Phe Trp Pro Ser 165 170 Ser Ser 1.78

<210> 829 <211> 43 <212>Amino acid <213> Homo sapiens

<220>

<221> misc_feature <222> (1)...(43) <223> X = any amino acid or stop code

<210> 830
<211> 259
<212>Amino acid
<213> Homo sapiens
<220>
<221> misc_feature
<222> (1)...(259)
<223> Y = any amino acid or stop code

<400> 830 Met His Arg Ile Lys Leu Asn Asp Arg Met Thr Phe Pro Glu Glu Leu 10 Asp Met Ser Thr Phe Ile Asp Val Glu Asp Glu Lys Ser Pro Gln Thr 20 25 Glu Ser Cys Thr Asp Ser Gly Ala Glu Asn Glu Gly Ser Cys His Ser 35 40 Asp Gln Met Ser Asn Asp Phe Ser Asn Asp Asp Gly Val Asp Glu Gly 55 60 Ile Cys Leu Glu Thr Asn Ser Gly Thr Glu Lys Ile Ser Lys Ser Gly 70 75 Leu Glu Lys Asn Ser Leu Ile Tyr Glu Leu Phe Ser Val Met Val His 85 90 Ser Gly Ser Ala Ala Gly Gly His Tyr Tyr Ala Cys Ile Lys Ser Phe 100 105 Ser Asp Glu Gln Trp Tyr Ser Phe Asn Asp Gln His Val Ser Arg Ile 120 Thr Gln Glu Asp Ile Lys Lys Thr His Gly Gly Ser Ser Gly Ser Arg 135 140 Gly Tyr Tyr Ser Ser Ala Phe Ala Ser Ser Thr Asn Ala Tyr Met Leu 150 155 Ile Tyr Arg Leu Lys Asp Pro Ala Arg Asn Ala Lys Phe Leu Glu Val 165 170 Asp Glu Tyr Pro Glu His Ile Lys Asn Leu Val Gln Lys Glu Arg Glu 180 185 Leu Glu Glu Glu Lys Arg Gln Arg Glu Ile Glu Arg Asn Thr Cys 200 Lys Ile Lys Leu Phe Cys Leu His Pro Thr Lys Gln Val Met Met Glu 215 Asp Xaa Ile Glu Val His Lys Asp Lys Thr Leu Lys Glu Ala Val Glu 230 235 Met Ala Tyr Lys Met Met Asp Leu Glu Glu Val Ile Pro Leu Asp Cys 245 250

Cys Arg Leu

<210> 831 <211> 200

<212>Amino acid

<213> Homo sapiens

<400> 831

Ser Val Met Pro Val Pro Ala Leu Cys Leu Leu Trp Ala Leu Ala Met Val Thr Arg Pro Ala Ser Ala Ala Pro Met Gly Gly Pro Glu Leu Ala 25 Gln His Glu Glu Leu Thr Leu Leu Phe His Gly Thr Leu Gln Leu Gly 40 Gln Ala Leu Asn Gly Val Tyr Arg Thr Thr Glu Gly Arg Leu Thr Lys 55 60 Ala Arg Asn Ser Leu Gly Leu Tyr Gly Arg Thr Ile Glu Leu Leu Gly 70 75 Gln Glu Val Ser Arg Gly Arg Asp Ala Ala Gln Glu Leu Arg Ala Ser 85 90 Leu Leu Glu Thr Gln Met Glu Glu Asp Ile Leu Gln Leu Gln Ala Glu 105 Ala Thr Ala Glu Val Leu Gly Glu Val Ala Gln Ala Gln Lys Val Leu 120 125 Arg Asp Ser Val Gln Arg Leu Glu Val Gln Leu Arg Ser Ala Trp Leu 140 135 Gly Pro Ala Tyr Arg Glu Phe Glu Val Leu Lys Ala His Ala Asp Lys 150 155 Gln Ser His Ile Leu Trp Ala Leu Thr Gly His Val Gln Arg Gln Arg 165 170 175 Arg Glu Met Val Ala Gln Gln His Arg Leu Arg Gln Ile Gln Glu Arg 180 185 Leu His Thr Ala Ala Leu Pro Ala 195

<210> 832 <211> 225 <212>Amino acid <213> Homo sapiens

<400> 832

Tie Thr Ser Val Amp Pro Arg Val Arg Gly Am Ala Ser Thr Gly Tyr 1 5 10 15
Gly Lys Tie Trp Leu Amp Amp Val Ser Cys Amp Gly Amp Glu Ser Amp 20 25 10 20
Leu Trp Ser Cys Amg Am Ser Gly Trp Gly Amn Am Amp Cys Ser His 35 45
Ser Glu Amp Val Gly Val Tie Cys Ser Amp Ala Ser Amp Met Glu Leu 50 55
Arg Leu Val Gly Gly Ser Ser Arg Cys Ala Gly Lys Val Glu Val Am 67
Val Gln Gly Ala Val Gly Tie Leu Cys Ala Am Gly Trp Gly Met am 68 60
Val Gln Gly Ala Val Gly Tie Leu Cys Ala Am Gly Trp Gly Met am 68 60

Ile Ala Glu Val Val Cys Arg Gln Leu Glu Cys Gly Ser Ala Ile Arg 100 105 Val Ser Arg Glu Pro His Phe Thr Glu Arg Thr Leu His Ile Leu Met 120 Ser Asn Ser Gly Cys Ala Gly Gly Glu Ala Ser Leu Trp Asp Cys Ile 135 140 Arg Trp Glu Trp Lys Gln Thr Ala Cys His Leu Asn Met Glu Ala Ser 150 155 Leu Ile Cys Ser Ala His Arg Gln Pro Arg Leu Val Gly Ala Asp Met 165 170 Pro Cys Ser Gly Arg Val Glu Val Lys His Ala His Thr Trp Arg Ser 185 Val Cys Asp Ser Asp Phe Ser Leu His Ala Ala Asn Val Leu Cys Arg 200 205 Glu Leu Asn Cys Gly Asp Ala Ile Ser Leu Ser Val Gly Asp His Phe Gly 225

<210> 833 <211> 206 <212>Amino acid <213> Homo sapiens

<400> 833

Ser Asn Tyr Pro Ser Ser Arg Phe Arg Val Ala Gly Ile Thr Gly Val 5 10 Lys Leu Gly Met Arg Ser Ile Pro Ile Ala Thr Ala Cys Thr Ile Tyr 20 25 His Lys Phe Phe Cys Glu Thr Asn Leu Asp Ala Tyr Asp Pro Tyr Leu 40 Ile Ala Met Ser Ser Ile Tyr Leu Ala Gly Lys Val Glu Glu Gln His 55 Leu Arg Thr Arg Asp Ile Ile Asn Val Ser Asn Arg Tyr Phe Asn Pro 70 Ser Gly Glu Pro Leu Glu Leu Asp Ser Arg Phe Trp Glu Leu Arg Asp 85 90 Ser Ile Val Gln Cys Glu Leu Leu Met Leu Arg Val Leu Arg Phe Gln 100 105 Val Ser Phe Gln His Pro His Lys Tyr Leu Leu His Tyr Leu Val Ser 120 125 Leu Gln Asn Trp Leu Asn Arg His Ser Trp Gln Arg Thr Pro Val Ala 135 140 Val Thr Ala Trp Ala Leu Leu Arg Asp Ser Tyr His Gly Ala Leu Cys 150 155 Leu Arg Phe Gln Ala Gln His Ile Ala Val Ala Val Leu Tyr Leu Ala 165 170 Leu Gln Val Tyr Gly Val Glu Val Pro Ala Glu Val Glu Ala Asp Glu 180 185 Ala Val Gly Trp Gln Ile Tyr Ala Met Asp Thr Glu Ile Pro 195 200 205 206

<210> 834 <211> 86

<212>Amino acid <213> Homo sapiens

<210>835
<211>110
<212>Amino acid
<213> Homo sapiens
<220>
<221> misc_feature
<2221 misc_feature
<2222 (1)...(110)
<223> X = any amino acid or stop code

<400> 835 Ala Arg Lys Asp Asp Leu Pro Pro Asn Met Arg Phe His Glu Glu Lys 1 5 10 Arg Leu Asp Phe Glu Trp Thr Leu Lys Ala Gly Xaa Glu Lys Gly Xaa 2.0 25 Pro Ser Lys Xaa Asn Lys Gly Trp Glu Gly Gln Glu Xaa Xaa Xaa Thr 40 Val Arg Asp Kaa Gly Ile Ser Kaa Kaa Val Lys Pro Gln His Leu Ser 55 Xaa Ala Leu Gln Met Ala Leu Lys Arg Val Tyr Thr Leu Leu Ser Ser 70 Trp Asn Cys Leu Glu Asp Phe Asp Gln Ile Phe Trp Gly Gln Lys Ser 85 Ala Leu Ala Gly Gln Trp Phe Pro Glu Val Ser Ile Ile Pro 100

<210>836
<211>70
<212>Amino acid
<213> Home sapiens
<220>
<221> misc_feature
<222> (1)...(70)
<223> X = any amino acid or stop code

<210> 837 <211> 473 <212>Amino acid <213> Homo sapiens

<400> 837 Gly Val Cys Gly Leu Pro Arg Phe Cys Gly Ser Ile Ile Leu Cys His 10 Tyr Glu Met Ser Ser Leu Gly Ala Ser Phe Val Gln Ile Lys Phe Asp 20 25 Asp Leu Gln Phe Phe Glu Asn Cys Gly Gly Gly Ser Phe Gly Ser Val 40 Tyr Arg Ala Lys Trp Ile Ser Gln Asp Lys Glu Val Ala Val Lys Lys 55 Leu Leu Lys Ile Glu Lys Glu Ala Glu Ile Leu Ser Val Leu Ser His 75 Arg Asn Ile Ile Gln Phe Tyr Gly Val Ile Leu Glu Pro Pro Asn Tyr 90 , Gly Ile Val Thr Glu Tyr Ala Ser Leu Gly Ser Leu Tyr Asp Tyr Ile 105 Asn Ser Asn Arg Ser Glu Glu Met Asp Met Asp His Ile Met Thr Trp 120 Ala Thr Asp Val Ala Lys Gly Met His Tyr Leu His Met Glu Ala Pro 135 140 Val Lys Val Ile His Arg Asp Leu Lys Ser Arg Asn Val Val Ile Ala 155 150 Ala Asp Gly Val Leu Lys Ile Cys Asp Phe Gly Ala Ser Arg Phe His 165 170 Asn His Thr Thr His Met Ser Leu Val Gly Thr Phe Pro Trp Met Ala 180 185 Pro Glu Val Ile Gln Ser Leu Pro Val Ser Glu Thr Cys Asp Thr Tyr 200 Ser Tyr Gly Val Val Leu Trp Glu Met Leu Thr Arg Glu Val Pro Phe 215 220 Lys Gly Leu Glu Gly Leu Gln Val Ala Trp Leu Val Val Glu Lys Asn 230 235 Glu Arg Leu Thr Ile Pro Ser Ser Cys Pro Arg Ser Phe Ala Glu Leu 250 Leu His Gln Cys Trp Glu Ala Asp Ala Lys Lys Arg Pro Ser Phe Lys 265 Gln Ile Ile Ser Ile Leu Glu Ser Met Ser Asn Asp Thr Ser Leu Pro 280 Asp Lys Cys Asn Ser Phe Leu His Asn Lys Ala Glu Trp Arg Cys Glu 295 300 Ile Glu Ala Thr Leu Glu Arg Leu Lys Lys Leu Glu Arg Asp Leu Ser 310 315 Phe Lys Glu Gln Glu Leu Lys Glu Arg Glu Arg Arg Leu Lys Met Trp 325 330

Glu Gln Lys Leu Thr Glu Gln Ser Asn Thr Pro Leu Leu Leu Pro Leu 340 345 350 Ala Ala Arg Met Ser Glu Glu Ser Tyr Phe Glu Ser Lys Thr Glu Glu 355 360 365 Ser Asn Ser Ala Glu Met Ser Cys Gln Ile Thr Ala Thr Ser Asn Gly 375 380 Glu Gly His Gly Met Asn Pro Ser Leu Gln Ala Met Met Leu Met Gly 390 395 Phe Gly Asp Ile Phe Ser Met Asn Lys Ala Gly Ala Val Met His Ser 405 410 Gly Met Gln.Ile Asn Met Gln Ala Lys Gln Asn Ser Ser Lys Thr Thr 425 430 Ser Lys Arg Arg Gly Lys Lys Val Asn Met Ala Leu Gly Phe Ser Asp 440 Phe Asp Leu Ser Glu Gly Asp Asp Asp Asp Asp Asp Gly Glu Glu 455 460 Glu Tyr Asn Asp Met Asp Asn Ser Glu 470

<210> 838 <211> 48 <212>Amino acid <213> Homo sapiens

<210> 839 <211> 116

 $^{\rm c400>~838}$ Met Leu Trp Glu Thr Gly Cys Ser Ala Ala Cys Arg Val Thr Val Ser $^{\rm 1}$ $^{\rm 15}$ Fro Thr Val Thr Phe Ala Thr Phe Ser Thr Arg Gly Ile Asp Ala Met $^{\rm 20}$ Arg Pro Gly Pro Ser Phe Leu Trp Arg Gln Gln Leu Ser Gln Gly $^{\rm 25}$

40

<212>Amino acid
<213> Homo sapiens
<220>
<221> misc_feature
<222> (1)...(116)
<223> X = any amino acid or stop code

SECTION | SE

<400> 840 Ser Leu Asn Asn Val Thr Leu Pro Gln Ala Lys Thr Glu Lys Asp Phe 10 Ile Gln Leu Cys Thr Pro Gly Val Ile Lys Gln Glu Lys Leu Gly Thr 20 25 Val Tyr Cys Gln Ala Ser Ser Pro Gly Ala Asn Met Ile Gly Asn Lys 35 4.0 Met Ser Ala Ile Ser Val His Gly Val Ser Thr Ser Gly Gly Gln Met 55 60 Tyr His Tyr Asp Met Asn Thr Ala Ser Leu Ser Gln Gln Xaa Asp Gln 70 75 Lys Pro Ile Phe Asn Val Ile Pro Pro Ile Pro Val Gly Ser Glu Asn 85 90 Trp Asn Arg Cys Gln Gly Ser Gly Asp Asp Asn Leu Thr Ser Leu Gly 100 105 Thr Leu Asn Phe Pro Gly Arg Thr Val Ser Phe Ser Phe Glu Met Glu 120 Ser Arg Ser Val Ala Gln Ala Gly Val Gln 130 135

<210>841
<211>82
<212>Amino acid
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(82)

c400s 841 Arg His Thr Gln Glu Cys Arg Cys Pro His Thr His Ile His Thr His 1 His Thr His Sr His Ser Hi

50 55 60
Cys Ala His Arg Pro Arg Weu Lys Val Ile Lys Glu Gly Gly Trp Leu
65 70 75 80
Gly Gly
82
<210> 842
<211> 58
<212>Amino acid
<213> Homo sapiens
<220>
<221> isc feature
<222> (211. (58)
<221> misc feature
<222> (21. (1). (58)
<223> X = any amino acid or stop code

<210> 843
<211> 230
<212>Amino acid
<213> Homo sapiens
<220>
<221> misc feature
<222> (1)...(230)
<223> X = any amino acid or stop code

<400> 843 Ala Thr Tyr Ile Val Asp Phe Gly Phe Ser Thr Thr Phe Arg Glu Gly Gln Met Leu Thr Ala Phe Cys Gly Met Tyr Pro Tyr Val Ala Pro Glu 20 Arg Ser Leu Gly Gln Ala Cys Gln Xaa Pro Ala Arg Asp Ile Gln Ser Leu Ser Val Ile Leu Tyr Phe Arg Asn Thr Val Gly Arg Arg Ala Arg Thr Leu Pro Phe Tyr Ser Ala Glu Ala Ser Lys Leu Gln Glu Lys Ile 70 Leu Thr Gly Arg Tyr His Ala Pro Pro Leu Leu Ala Leu Gln Leu Asp 90 Ser Leu Ile Lys Leu Leu Met Leu Asn Ala Arg Lys Cys Pro Ser Leu 100 105 Kaa Leu Met Lys Asn Pro Trp Val Lys Ser Ser Gln Lys Met Pro Leu 120 Ile Pro Tyr Glu Glu Pro Leu Arg Gly Pro Pro Gln Thr Ile Gln Leu

<210> 844 <211> 258 <212>Amino acid <213> Homo sapiens

258

<220> <221> misc feature

<222> (1)...(258) <223> X = any amino acid or stop code

<400> 844 Ala Lys Gln Glu Leu Ala Lys Leu Met Arg Ile Glu Asp Pro Ser Leu 10 Leu Asn Ser Arg Val Leu Leu His His Ala Lys Ala Gly Thr Ile Ile 2.5 Ala Arg Gln Gly Asp Gln Asp Val Ser Leu His Phe Val Leu Trp Gly 40 Cys Lau His Val Tyr Gln Arg Met Ile Asp Lys Ala Glu Asp Val Cys 55 60 Leu Phe Val Ala Gln Pro Gly Glu Leu Val Gly Gln Leu Ala Val Leu 70 75 Thr Gly Glu Pro Leu Ile Phe Thr Leu Arg Ala Gln Arg Asp Cys Thr 85 90 Phe Leu Arg Ile Ser Lys Ser Asp Phe Tyr Glu Ile Met Arg Ala Gln 105 Pro Ser Val Val Leu Ser Ala Ala His Thr Val Ala Ala Arg Met Ser 115 120 Pro Phe Val Arg Gln Met Asp Phe Ala Ile Asp Trp Thr Ala Val Glu 135 140 Ala Gly Arg Ala Leu Tyr Arg Cys Ser Ser His Arg Ala Ala Gln Ala 150 155 160 Arg Pro Arg Gly Gly Asp Leu Gly Val Val Arg Pro Cys Xaa Pro Pro 170 Arg Pro Leu Arg Gln Gly Asp Arg Ser Asp Cys Thr Tyr Ile Val Leu 185 Asn Gly Arg Leu Arg Ser Val Ile Gln Arg Gly Ser Gly Lys Lys Glu 200 Leu Val Gly Glu Tyr Gly Arg Gly Asp Leu Ile Gly Val Val Ser Ala 215 220 Thr Pro Thr His Xaa Pro Leu Ala Phe Ser Arg Pro Val Pro Arg Gln 225 230 235 Leu Thr Arg Ile Ile Pro Gly Asn Pro Gly Ser Gly Glu Val Phe Pro 245 Gly Ala

465

```
<211> 235
    <212>Amino acid
    <213> Homo sapiens
    <220>
    <221> misc_feature
    <222> (1)...(235)
    <223> X = any amino acid or stop code
    <400> 845
His Ala Ser Gly Trp Thr Pro Gly Thr Thr Gln Thr Leu Gly Gln Gly
  1
                                    10
Thr Ala Trp Asp Thr Val Ala Ser Thr Pro Gly Thr Ser Glu Thr Thr
                                25
Ala Ser Ala Glu Gly Arg Arg Thr Pro Gly Ala Thr Arg Pro Ala Ala
                           40
                                               45
Pro Gly Thr Gly Ser Trp Ala Glu Gly Ser Val Lys Ala Pro Ala Pro
                        55
                                           60
Ile Pro Glu Ser Pro Pro Ser Lys Ser Arg Ser Met Ser Asn Thr Thr
                    70
                                       75
Glu Gly Val Trp Glu Gly Thr Arg Ser Ser Val Thr Asn Arg Ala Arg
                                   90
Ala Ser Lys Asp Arg Arg Glu Met Thr Thr Thr Lys Ala Asp Arg Pro
          100
                              105
                                                 110
Arg Glu Asp Ile Glu Gly Val Arg Ile Ala Leu Asp Ala Ala Lys Lys
       115
                          120
                                              1.25
Val Leu Gly Thr Ile Gly Pro Pro Ala Leu Val Ser Glu Thr Leu Ala
                       135
                                          140
Trp Glu Ile Leu Pro Gln Ala Thr Pro Val Ser Lys Gln Gln Ser Gln
                  150
                                      155
Gly Ser Ile Gly Glu Thr Thr Pro Ala Ala Gly Met Trp Thr Leu Gly
               165
                                  170
Thr Pro Ala Ala Asp Val Trp Ile Leu Gly Thr Pro Ala Ala Asp Val
                              185
Trp Thr Ser Met Glu Ala Ala Ser Gly Glu Gly Ser Ala Ala Gly Asp
                          200
Leu Asp Ala Ala Thr Gly Asp Arg Gly Pro Gln Ala Thr Leu Ser Gln
                       215
Thr Pro Ala Val Xaa Pro Trp Gly Pro Pro Gly
                   230
    <210> 846
    <211> 134
    <212>Amino acid
    <213> Homo sapiens
    <220>
    <221> misc feature
    <222> (1) ... (134)
```

<400> 846

<223> X = any amino acid or stop code

<210> 845

Ala Gly Thr Ser Gly Thr Gly Asp Thr Gly Pro Gly Asn Thr Ala Val 10 Ser Gly Thr Pro Val Val Ser Pro Gly Ala Thr Pro Gly Ala Pro Gly 25 Ser Ser Thr Pro Gly Glu Ala Asp Ile Gly Asn Thr Ser Phe Gly Lys Ser Gly Thr Pro Thr Val Ser Ala Ala Ser Thr Thr Ser Ser Pro Val Ser Lys His Thr Asp Ala Ala Ser Ala Thr Ala Val Thr Ile Ser Gly 70 Ser Lys Pro Gly Thr Pro Gly Thr Pro Gly Gly Ala Thr Ser Gly Gly 85 90 Lys Ile Thr Pro Gly Ile Ala Xaa Pro Thr Leu Asp Gln Lys Ser Pro 105 Cys Phe Ser Gly Tyr Gly Gly Tyr Phe Pro Val Asn Pro His Gln Asn 120 Pro Cys Ala Asp Ser Leu

130 134

<210> 847 <211> 188 <212>Amino acid <213> Homo sapiens

<220> <221> misc feature

<222> (1)...(188)

<223> X = any amino acid or stop code

<400> 847 Arg Ala His Arg Cys Cys Leu Pro Leu Pro Ser Leu Ser Cys Glu Ile 10 Gln Ile Gly Phe Ser Xaa Ser Ser Ile Phe Pro Gly Gln Xaa Ala Cys 25 Pro Cys Ser Cys Cys Arg Ser Cys Arg Arg Asn Trp Pro Gln Ser Pro 40 Arg Cys Pro His His Pro Pro Ala Pro Cys Ser Leu Leu Leu Ser Ser 55 Cys Leu Pro Pro Pro Leu Ser Cys Ser Trp Arg Gly Thr Ser Gly Lys 70 Pro Pro Ser Gln Ser Pro Ala Ala Ser Arg Ser Met Arg Pro Arg Cys 90 Ser Pro Arg Thr Ser Ser Leu Arg Gly Ala Ser Cys Arg Gly Pro Gly 105 Gly Ser Ala Pro Ala Ala Ala Ser Gly Pro Arg Cys Arg Gly Cys Ser 120 Arg Ser Pro Arg Arg Cys Ser Arg Ser Gly Cys Ala Ala Ala Ser Pro 135 140 Pro Arg Ser Gln Arg Arg Ser Pro Pro Leu Ser Pro Pro Pro Phe Pro 150 155 Thr Ser Gly Thr Leu Leu Leu Lys Thr Ser Arg Phe Gly Ser Ala Thr 165 170 Arg Glu Xaa Ser Ser Pro Arg Pro Arg Pro Arg Pro 180 185 188

<210> 848 <211> 328 <212>Amino acid

<2213> Homo sapiens <220>
<221> misc_feature <222> (1)...(328)

<223> X = any amino acid or stop code

<400> 848 Asp Asp Val Pro Pro Pro Ala Pro Asp Leu Tyr Asp Val Pro Pro Gly 10 Leu Arg Arg Pro Gly Pro Gly Thr Leu Tyr Asp Val Pro Arg Glu Arg 25 Val Leu Pro Pro Glu Val Ala Asp Gly Gly Val Val Asp Ser Gly Val 35 40 Tyr Ala Val Pro Pro Pro Ala Glu Arg Glu Ala Pro Ala Glu Gly Lys 55 Arg Leu Ser Ala Ser Ser Thr Gly Ser Thr Arg Ser Ser Gln Ser Ala 70 75 Ser Ser Leu Glu Val Ala Gly Pro Gly Arg Glu Pro Leu Glu Leu Glu 85 90 Val Ala Val Glu Ala Leu Ala Arg Leu Gln Gln Gly Val Ser Ala Thr 105 Val Ala His Leu Leu Asp Leu Ala Gly Ser Ala Gly Ala Thr Gly Ser 120 Trp Arg Ser Pro Ser Glu Pro Gln Glu Pro Leu Val Gln Asp Leu Gln 135 Ala Ala Val Ala Ala Val Gln Ser Ala Val His Glu Leu Leu Glu Phe 150 155 Ala Arg Ser Ala Val Gly Asn Ala Ala His Thr Ser Asp Arg Ala Leu 170 His Ala Lys Leu Ser Arg Gln Leu Gln Lys Met Glu Asp Val His Gln 185 Thr Leu Val Ala His Gly Gln Ala Leu Asp Ala Gly Arg Gly Gly Ser 195 200 Gly Ala Thr Leu Glu Asp Leu Asp Arg Leu Val Ala Cys Ser Arg Ala 215 220 Val Pro Glu Asp Ala Lys Gln Leu Ala Ser Phe Leu His Gly Asn Ala 235 230 Ser Leu Leu Phe Arg Arg Thr Lys Ala Thr Ala Pro Gly Pro Glu Gly 250 245 Gly Gly Thr Leu His Pro Asn Pro Thr Asp Lys Thr Ser Ser Ile Gln 260 265 270 Ser Arg Pro Leu Pro Ser Pro Pro Lys Phe Thr Ser Gln Asp Ser Pro 275 280 285 Asp Gly Gln Tyr Glu Asn Ser Glu Gly Gly Trp Met Glu Asp Tyr Asp 295 300 Tyr Val His Leu Thr Gly Gly Arg Arg Ser Phe Xaa Lys Thr Gln Lys 310 315 Glu Leu Leu Gly Lys Arg Ala Ala 325 328

<210> 849 <211> 98 <212>Amino acid <213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(98)

<223> X = any amino acid or stop code

<400> 849 Met Ala Thr Asp Glu Glu Asn Val Tyr Gly Leu Glu Glu Asn Ala Gln 10 Ser Arg Gln Glu Ser Thr Arg Arg Leu Ile Leu Val Gly Arg Thr Gly 20 25 Ala Gly Lys Ser Ala Thr Gly Asn Ser Ile Leu Gly Gln Arg Arg Phe 40 Phe Ser Arg Leu Gly Ala Thr Ser Val Thr Arg Ala Cys Thr Thr Gly 55 Ser Arg Arg Trp Asp Lys Cys His Val Glu Val Val Asp Thr Pro Asp 70 75 Ile Phe Ser Ser Gln Val Ser Lys Thr Asp Pro Gly Cys Glu Glu Arg 90 Xaa *

<210> 850
<211> 94
<212>Amino acid
<213> Homo sapiens
<220>
<221> misc_feature
<222> (1)...(94)
<223> X = any amino acid or stop code

97

<210> 851
<211> 50
<212>Amino acid
<213> Homo sapiens
<220>
<221> misc feature
<222> (1)...(50)
<223> X = amy amino acid or stop code

<400> 85

Met Ile 50

<210> 852

<211> 143

<212>Amino acid <213> Homo sapiens

<400> 852

Arg Arg Ser Pro Pro Pro Ala Pro Pro Pro Leu Pro Ser Pro Leu Ser 5 10 Pro Pro Pro Arg Ala Pro Val Ser Pro Ala Ser Thr Met Pro Ile Leu 20 25 Leu Phe Leu Ile Asp Thr Ser Ala Ser Met Asn Gln Arg Ser His Leu 40 Gly Thr Thr Tyr Leu Asp Thr Ala Lys Gly Ala Val Glu Thr Phe Met 55 Lys Leu Arg Ala Arg Asp Pro Ala Ser Arg Gly Asp Arg Tyr Met Leu 65 70 75 Val Thr Phe Glu Glu Pro Pro Tyr Ala Ile Lys Ala Gly Trp Lys Glu 8.5 90 Asn His Ala Thr Phe Met Asn Glu Leu Lys Asn Leu Gln Ala Glu Gly 100 105 Leu Thr Thr Leu Gly Gln Ser Leu Arg Thr Ala Phe Asp Leu Leu Asn 120 125 Leu Asn Arg Leu Val Thr Gly Ile Asp Asn Tyr Gly Gln Val Gly 135

<210> 853

<211> 154 <212>Amino acid

<213> Homo sapiens

<400> 853

Asn Cys Arg Thr Tyr Val Phe Cys Phe Val Leu Val Phe Arg Leu Leu 15 Phe Leu His Gly Ser Pro Leu Ser Pro Ser Leu Leu Ser Arg Ala Gly 25 25 30 Leu Leu Cys Gly Ser Ala Glu Asn Pro Thr Pro Phe Leu Cys Gly Ile 35 14 40 Thr Met Ala Ala Gly Val Ser Leu Leu Ala Leu Val Val Arg Val Ile 50 50 55 Leu Ser Thr Ala Ile Leu Cys Pro Ser Gly Ala Ser Arg Arg Gln Arg 65 70 Ser Ser Gly Val Glu Tyr Arg Leu Tyr Gly Thr Asp Ser Gly Val Tyr Arg Leu Tyr Gly Thr Asp Ser Gly Val Tyr Arg Leu Tyr

85 90 95
Cys Trp Arg Val Gly Phe Leu Gly Pro Gly Gly Glu Leu Arg Leu Gly
100 105 110
Leu Ser Glu Ala Arg Gly Gly Arg Val Trp Gly Arg Gly Glu Lys Arg
115 120 125
Cys Arg Val Trp Ala Val Arg Ser Leu Arg Lys Gly Phe Gly Ser Val
130 135 140
Ala Ala Leu Arg Arg Gly Tle Trp Ala Gly
145 150 154

<210.9 854
<211.5 90
<212.5Amino acid
<2213. Homo sapiens
<220.5
<221. misc feature
<222.2 (1)...(90)
<223.X = any amino acid or stop code</pre>

 $\begin{array}{c} < <00> \ \, 854 \\ 1 \ \, 1m \ \, Pro \ \, Thr \ \, Pro \ \, Pro \ \, Gln \ \, Tyr \ \, Thr \ \, Cys \ \, Ser \ \, Cys \ \, Val \ \, Leu \ \, Gly \\ 1 \ \, 1 \ \, 1 \ \, 1 \ \, 1 \ \, 10 \ \, 15 \ \, 10 \ \, 15 \ \, 10 \\ 1 \ \, 10 \ \, 10 \ \, 15 \ \, 10 \ \, 15 \ \, 10 \ \, 15 \ \, 10 \ \, 15 \ \, 10 \$

<210> 855
<211> 61
<212>Amino acid
<213> Homo sapiens
<220>
<221> misc_feature
<222> (1)...(61)
<223> X = any amino acid or stop code

400> 855

619 Lys Ala Gly Gly Ala Ala Gly Leu Phe Ala Lys Gln Val Gln Lys

1 1 5 10 15

Lys Phe Ser Arg Ala Gln Glu Lys Xaa Thr Arg Arg Phe Gly Lys Thr

20 25

Cys Gln Pro Glu Glu Arg Ala Arg Glu Glu Arg Gln Glu Gly Pro Glu

35 40 45

11e Glu Phe Gly Phe Ser Phe Phe Ser Leu Ser Leu Tyr

50 56

<210> 856
<211> 779
<212>Amino acid
<213> Homo sapiens
<220>
<221> misc_feature
<222> (1)...(779)
<223> X = any amino acid or stop code

<400> 856 Pro Lys Arg Leu Phe Leu Phe Gln Asp Val Asn Thr Leu Gln Gly Gly Gly Gln Pro Val Val Thr Pro Ser Val Gln Pro Ser Leu Gln Pro Ala His Pro Ala Leu Pro Gln Met Thr Ser Gln Ala Pro Gln Pro Ser Val Thr Gly Leu Gln Ala Pro Ser Ala Ala Leu Met Gln Val Ser Ser Leu Asp Ser His Ser Ala Val Ser Gly Asn Ala Gln Ser Phe Gln Pro Tyr Ala Gly Met Gln Ala Tyr Ala Tyr Pro Gln Ala Ser Ala Val Thr Ser Gln Leu Gln Pro Val Arg Pro Leu Tyr Pro Ala Pro Leu Ser Gln Pro Pro His Phe Gln Gly Ser Gly Asp Met Ala Ser Phe Leu Met Thr Glu Ala Arg Gln His Asn Thr Glu Ile Arg Met Ala Val Ser Lys Val Ala Asp Lys Met Asp His Leu Met Thr Lys Val Glu Glu Leu Gln Lys His Ser Ala Gly Asn Ser Met Leu Ile Pro Ser Met Ser Val Thr Met Glu Thr Ser Met Ile Met Ser Asn Ile Gln Arg Ile Ile Gln Glu Asn Glu Arg Leu Lys Gln Glu Ile Leu Glu Lys Ser Asn Arg Ile Glu Glu Gln Asn Asp Lys Ile Ser Glu Leu Ile Glu Arg Asn Gln Arg Tyr Val Glu Gln Ser Asn Leu Met Met Glu Lys Arg Asn Asn Ser Leu Gln Thr Ala Thr Glu Asn Thr Gln Ala Arg Val Leu His Ala Glu Gln Glu Lys Ala Lys Val Thr Glu Glu Leu Ala Ala Ala Thr Ala Gln Val Ser His Leu Gln Leu Lys Met Thr Ala His Gln Lys Lys Glu Thr Glu Leu Gln Met Gln Leu Thr Glu Ser Leu Lys Glu Thr Asp Leu Leu Arg Gly Gln Leu Thr Lys Val Gln Ala Lys Leu Ser Glu Leu Gln Glu Thr Ser Glu Gln Ala Gln Ser Lys Phe Lys Ser Glu Lys Gln Asn Arg Lys Gln Leu Glu 330 335 Leu Lys Val Thr Ser Leu Glu Glu Glu Leu Thr Asp Leu Arg Val Glu 345 350 Lys Glu Ser Leu Glu Lys Asn Leu Ser Glu Arg Lys Lys Lys Ser Ala Gln Glu Arg Ser Gln Ala Glu Glu Glu Ile Asp Glu Ile Arg Lys Ser

Tyr Gln Glu Glu Leu Asp Lys Leu Arg Gln Leu Leu Lys Lys Thr Arg 390 395 Val Ser Thr Asp Gln Ala Ala Ala Glu Gln Leu Ser Leu Val Gln Ala 405 410 Glu Leu Gln Thr Gln Trp Glu Ala Lys Cys Glu His Leu Leu Ala Ser 420 425 Ala Lys Asp Glu His Leu Gln Gln Tyr Gln Glu Val Cys Ala Gln Arg 435 440 445 Asp Ala Tyr Gln Gln Lys Leu Val Gln Leu Gln Glu Lys Ser Val Cys 455 Phe Ala Cys Leu Ala Leu Gln Ala Gln Ile Thr Ala Leu Thr Lys Gln 470 475 Asn Glu Gln His Ile Lys Glu Leu Glu Lys Asn Lys Ser Gln Met Ser 485 490 Gly Val Glu Ala Ala Ala Ser Asp Pro Ser Glu Lys Val Lys Lys Ile 500 505 510 Met Asn Gln Val Phe Gln Ser Leu Arg Arg Glu Phe Glu Leu Glu Glu 520 525 Ser Tyr Asn Gly Arg Thr Ile Leu Gly Thr Ile Met Asn Thr Ile Lys 535 540 Met Val Thr Leu Gln Leu Leu Asn Gln Gln Glu Gln Glu Lys Glu Glu 550 555 Ser Ser Ser Glu Glu Glu Glu Glu Lys Ala Glu Glu Arg Pro Arg Arg 565 570 Pro Ser Gln Glu Gln Ser Ala Ser Ala Ser Ser Gly Gln Pro Gln Ala 585 Pro Leu Asn Arg Glu Arg Pro Glu Ser Pro Met Val Pro Ser Glu Gln 600 Val Val Glu Glu Ala Val Pro Leu Pro Pro Gln Ala Leu Thr Thr Ser 615 620 Gln Asp Gly His Arg Arg Lys Gly Asp Ser Glu Ala Glu Ala Leu Ser 630 635 Glu Ile Lys Asp Gly Ser Leu Pro Pro Glu Leu Ser Cys Ile Pro Ser 650 His Arg Val Leu Gly Pro Pro Thr Ser Ile Pro Pro Glu Pro Leu Gly 660 665 Pro Val Ser Met Asp Ser Glu Cys Glu Glu Ser Leu Ala Ala Ser Pro 680 685 Met Ala Ala Lys Pro Asp Asn Pro Ser Gly Lys Val Cys Val Gln Gly 695 700 Lys Xaa Ala Pro Asp Gly Pro Thr Tyr Lys Glu Ser Ser Thr Arg Leu 715 705 710 Phe Pro Gly Phe Gln Asp Pro Glu Glu Gly Asp Pro Leu Ala Leu Gly 725 730 Leu Glu Ser Pro Gly Glu Pro Gln Pro Pro Gln Leu Gln Gly Lys Val 740 745 750 Asp Val His Xaa Val Pro Pro Val Pro His Lys Gly Ala Phe Gln Glu 755 760 Gln Glu Gly Arg Phe Pro Gln Phe Cys Arg Glu 775

<210> 857 <211> 510

<212>Amino acid <213> Homo sapiens

<220> <221> misc feature

<222> (1)...(510)

<223> X = any amino acid or stop code

Ser Glu Thr Ala Gln Gln Ile Ile Asp Arg Leu Arg Val Lys Leu Ala Lys Glu Pro Gly Ala Asn Leu Phe Leu Met Ala Val Gln Asp Ile Arg 2.5 Val Gly Gly Arg Gln Ser Asn Ala Ser Tyr Gln Tyr Thr Leu Leu Ser 3.5 4.0 Asp Asp Leu Ala Ala Leu Arg Glu Trp Glu Pro Lys Ile Arg Lys Lys 55 Leu Ala Thr Leu Pro Glu Leu Ala Asp Val Asn Ser Asp Gln Gln Asp 70 75 Asn Gly Ala Glu Met Asn Leu Val Tyr Asp Arg Asp Thr Met Ala Arg 90 Leu Gly Ile Asp Val Gln Ala Ala Asn Ser Leu Leu Asn Asn Ala Phe 105 Gly Gln Arg Gln Ile Ser Thr Ile Tyr Gln Pro Met Asn Gln Tyr Lys 120 Val Val Met Glu Val Asp Pro Arg Tyr Thr Gln Asp Ile Ser Ala Leu 135 140 Glu Lys Met Phe Val Ile Asn Asn Glu Gly Lys Ala Ile Pro Leu Ser 150 155 Tyr Phe Ala Lys Trp Gln Pro Ala Asn Ala Pro Leu Ser Val Asn His 165 170 Gln Gly Leu Ser Ala Ala Leu Thr Ile Ser Phe Asn Leu Pro Thr Gly 185 Lys Ser Leu Ser Asp Ala Ser Ala Ala Ile Asp Arg Ala Met Ser Gln 195 200 Leu Gly Val Pro Ser Thr Val Arg Gly Ser Phe Ala Gly Pro Ala Gln 215 220 Val Phe Gln Glu Thr Met Asn Ser Gln Val Ile Leu Ile Ile Ala Ala 230 235 Ile Ala Thr Val Tyr Ile Val Leu Gly Ile Pro Tyr Glu Arg Tyr Val 250 245 His Pro Pro Thr Ile Leu Leu Xaa Arg Pro Gly Ala Asn Leu Phe Leu 265 Met Ala Val Gln Asp Ile Arg Val Gly Gly Arg Gln Ser Asn Ala Ser 280 Tyr Gln Tyr Thr Leu Leu Ser Asp Asp Leu Ala Ala Leu Arg Glu Trp 295 300 Glu Pro Lys Ile Arg Lys Lys Leu Ala Thr Leu Pro Glu Leu Ala Asp 310 315 Val Asn Ser Asp Gln Gln Asp Asn Gly Ala Glu Met Asn Leu Val Tyr 325 330 Asp Arg Asp Thr Met Ala Arg Leu Gly Ile Asp Val Gln Ala Ala Asn 345 Ser Leu Leu Asn Asn Ala Phe Gly Gln Arg Gln Ile Ser Thr Ile Tyr 360 Gln Pro Met Asn Gln Tyr Lys Val Val Met Glu Val Asp Pro Arg Tyr 375 380 Thr Gln Asp Ile Ser Ala Leu Glu Lys Met Phe Val Ile Asn Asn Glu 390 395 Gly Lys Ala Ile Pro Leu Ser Tyr Phe Ala Lys Trp Gln Pro Ala Asn 405 410 Ala Pro Leu Ser Val Asn His Gln Gly Leu Ser Ala Ala Leu Thr Ile 425 Ser Phe Asn Leu Pro Thr Gly Lys Ser Leu Ser Asp Ala Ser Ala Ala 440 Ile Asp Arg Ala Met Ser Gln Leu Gly Val Pro Ser Thr Val Arg Gly 455 460 Ser Phe Ala Gly Pro Ala Gln Val Phe Gln Glu Thr Met Asn Ser Gln

Val Ile Leu Ile Ile Ala Ala Ile Ala Thr Val Tyr Ile Val Leu Gly

475

470

<210> 858
<211> 137
<212>Marino acid
<213> Homo sapiens
<220>
<221> misc_feature
<222> (1)... (137)
<223> X = any amino acid or stop code

<400> 858 Ile Ile Thr Pro Asp Ala Met Gly Cys Gln Lys Asp Ile Ala Glu Lys 10 Ile Gln Lys Gln Gly Gly Asp Tyr Leu Phe Ala Val Lys Gly Asn Gln 20 25 Gly Arg Leu Asn Lys Ala Phe Glu Glu Lys Phe Pro Leu Lys Glu Leu 35 40 Asn Asn Pro Glu His Asp Ser Tyr Ala Ile Ser Glu Lys Ser His Gly 55 60 Arg Glu Glu Ile Arg Leu His Ile Val Cys Asp Val Pro Asp Glu Leu 75 70 Ile Asp Phe Thr Phe Glu Trp Lys Gly Leu Lys Lys Leu Cys Val Ala 85 90 Val Ser Phe Arg Ser Ile Ile Ala Glu Gln Lys Lys Glu Pro Glu Met 105 Thr Val Arg Tyr Asn Ile Ser Xaa Leu Gly Ile Ala Gly Asp Ile Ser 120 Val Thr Ala Ile Ser Glv Thr Asp Asp 130 135 137

<211> 123
<212>Amino acid
<213> Homo sapiens
<220>
<221> misc_feature
<222> (1)...(123)
<223> X = any amino acid or stop code

<210> 859

4005 859 Met Leu Thr Gln Ala Arg Arg Glu Val Ile Ile Ala 1 1 5 10 15 15 Ass Ala Tyr Phe Phe Pro Gly Tyr Arg Phe Leu His Ala Leu Arg Lys 20 25 30 Ala Ala Arg Arg Gly Val Arg Ile Lys Leu Ile Ile Gln Gly Glu Pro 30 Asp Met Pro Ile Val Arg Val Gly Ala Arg Leu Leu Tyr Asn Tyr Leu 50 60 Val Lys Gly Gly Val Gln Val Phe Glu Tyr Arg Arg Arg Pro Leu His

55 70 75 80 80 80 817 Lys Val Ala Leu Met Asp Asp His Trp Ala Thr Val Gly Ser Ser 85 90 95 95 Asn Leu His Pro Val Ser Xaa Ser Gly Asn Leu Gln Ala Asn Val Ile 100 105 105 110 Leu His Val Leu Arg Val Pro Thr Leu Asn Pro 123

<210> 860 <211> 190 <212>Amino acid <213> Homo sapiens <220>

<221> misc feature

<222> (1)...(190) <223> X = any amino acid or stop code

<400> 860 Cys Trp Ser Lys Ser Ala Ala Phe His Ser Lys Leu Ala Thr Thr Cys 10 Ile Val Pro Val Cys Ala Ala Gly His Cys Ser Ala Ala Trp Xaa Ser 20 25 Leu Arg Pro Ile Glu Ala Leu Ala Lys Glu Val Arg Glu Leu Lys Xaa 40 His Thr Arg Xaa Leu Leu Asn Pro Ala Thr Thr Arg Glu Leu Thr Ser 55 60 Leu Gly Arg Asn Leu Asn Arg Leu Leu Lys Ser Glu Arg Glu Arg Tyr 70 75 Asp Lys Tyr Arg Thr Thr Leu Thr Asp Leu Thr His Ser Leu Lys Thr 90 95 Pro Leu Ala Val Leu Gln Ser Thr Leu Arg Ser Leu Arg Ser Glu Lys 100 105 Met Ser Val Ser Asp Ala Glu Pro Val Met Leu Glu Gln Ile Ser Arg 120 Ile Ser Gln Gln Ile Gly Tyr Tyr Leu His Arg Ala Ser Met Arg Gly 135 140 Gly Thr Leu Leu Ser Arg Glu Leu His Pro Val Ala Pro Leu Leu Asp 150 155 Asn Leu Thr Ser Ala Leu Ile Lys Gly Lys Pro Arg Lys Gly Gly Asn 165 170 Val Thr Val Phe Pro Phe Thr Ala Met Tyr Arg Asp Gly His 180 185

<210> 861 <211> 241 <212>Amino acid <213> Homo sapiens

< 400> 861 Gly Asn Thr Val Met Phe Gln His Leu Met Gln Lys Arg Lys His Thr 1 S 10 15 Thr Thr Tyr Gly Pro Leu Thr Ser Thr Leu Tyr Asp Leu Thr Glu 2 20 25 30

Ile Asp Ser Ser Gly Asp Glu Gln Ser Leu Leu Glu Leu Ile Ile Thr 40 Thr Lys Lys Arg Glu Ala Arg Gln Ile Leu Asp Gln Thr Pro Val Lys 55 Glu Leu Val Ser Leu Lys Trp Lys Arg Tyr Gly Arg Pro Tyr Phe Cys 75 70 Met Leu Gly Ala Ile Tyr Leu Leu Tyr Ile Ile Cys Phe Thr Met Cys 85 90 Cys Ile Tyr Arg Pro Leu Lys Pro Arg Thr Asn Asn Arg Thr Ser Pro 105 Arg Asp Asn Thr Leu Leu Gln Gln Lys Leu Leu Gln Glu Ala Tyr Met 120 Thr Pro Lys Asp Asp Ile Arg Leu Val Gly Glu Leu Val Thr Val Ile 135 Glv Ala Ile Ile Ile Leu Leu Val Glu Val Pro Asp Ile Phe Arg Met 150 155 Gly Val Thr Arg Phe Phe Gly Gln Thr Ile Leu Gly Gly Pro Phe His 165 170 175 Val Leu Ile Ile Thr Tyr Ala Phe Met Val Leu Val Thr Met Val Met 180 185 Arg Leu Ile Ser Ala Ser Gly Glu Val Val Pro Met Ser Phe Ala Leu 200 205 Val Leu Gly Trp Cys Asn Val Met Tyr Phe Ala Arg Gly Phe Gln Met 220 215 Leu Gly Pro Phe Thr Ile Met Ile Gln Lys Met Ile Phe Gly Asp Leu 230 Met 241

<210> 862 <211> 45 <212>Amino acid <213> Homo sapiens

<210> 863 <211> 120 <212>Amino acid <213> Homo sapiens

<210> 864 <211> 124 <212>Amino acid <213> Homo sapiens <220> <221> misc feature

<222> (1)...(124) <223> X = any amino acid or stop code

<400> 864 Arg Pro Ala Pro Ala Pro Ser Ala Ala Pro Glu Glu Ala Pro Ser Pro 5 10 Gly Val Lys Gly Arg Gly Met Ala Lys Arg Arg Val Pro Ala Pro Val 20 25 Trp Gly Gly Ala Gly Gly Gly Thr Lys Ser Ala Arg Arg Ala Ala Ala 40 Ala Pro Asp Thr Glu Arg Ser Glu Glu Gly Gly Arg Ala Val Lys Glu 55 Ala Tyr Pro Ser Ser Arg Gln Pro Pro Pro Pro Ser Pro Xaa Pro Leu 70 75 Arg Cys Ala Arg Arg Cys His Pro Asn Leu Ala Pro Ser Met Pro Ile 85 90 Ser Asn Arg Glu Gly Lys Gly Lys Arg Arg Glu Glu Lys Ile Arg Pro 100 105 Leu Ser Pro Ala Ser Thr His Thr Ser Ala Arg Ala

<210> 865 <211> 120 <212>Amino acid <213> Homo sapiens

 $\begin{array}{c} 4400 \times 865 \\ \text{Leu Gln Gly Val His Gly Ser Ser Ser Thr Phe Cys Ser Ser Leu Ser} \\ 1 \\ 5 \\ \text{Ser Asp Phe Asp Pro Leu Glu Tyr Cys Ser Pro Lys Gly Asp Pro Gln} \\ 20 \\ 25 \\ 30 \\ \text{Arg Val Asp Met Gln Pro Ser Val Thr Ser Arg Pro Arg Ser Leu Asp} \\ 35 \\ \text{Ser Glu Val Pro Thr Gly Glu Thr Gln Val Ser Ser His Val His Tyr} \\ 50 \\ 50 \\ \text{His Arg His Arg His His His Tyr Lys Lys Arg Phe Gln Arg His Gly} \\ \end{array}$

65 70 75 80 Arg Lys Pro Gly Pro Glu Thr Gly Val Pro Gln Ser Arg Pro Pro Ile 85 90 95 Pro Arg Thr Gln Pro Gln Pro Glu Pro Pro Ser Pro Asp Gln Gln Val 100 105 110 Thr Arg Ser Asn Ser Ala Ala Pro 120

<210> 866 <211> 82 <212>Amino acid <213> Homo sapiens

<400> 866 Met Ala Asp Pro Asp Pro Arg Tyr Pro Arg Ser Ser Ile Glu Asp Asp 10 15 Phe Asn Tyr Gly Ser Ser Glu Ala Ser Asp Thr Val His Ile Arg Met 20 25 Ala Phe Leu Arg Arg Val Tyr Ser Ile Leu Ser Leu Gln Asp Leu Leu 35 40 Ala Thr Val Thr Ser Thr Asp Asn Leu Ala Phe Glu Asp Gly Arg Thr 55 Asp Trp Leu Gln Arg Pro Asp Cys Val Ser Phe Lys Ile His Val Leu 65 70 75 Pro Met 82

<210> 867 <211> 60 <212>Amino acid <213> Homo sapiens

c400> 867 Åla Gly Met Ser Val Val Val Val Pro Pro Ile Gly Ser Ser Tyr Leu 1 5 10 15 Gly Leu Ile Ser Gln Glu His Phe Pro Asn Glu Phe Thr Ser Gly Asp 20 25 25 30 Gly Lys Lys Ala His Gln Asp Phe Gly Tyr Phe Tyr Gly Ser Ser Tyr 35 40 45 Val Ala Ala Ser Asp Ser Ser Arg Thr Pro Gly Leu 50 60

<210> 868 <211> 78 <212>Amino acid <213> Homo sapiens

<400> 868
Val Ala Ala Ala Leu Thr Leu Phe Pro Gln Gln Leu Ser Pro Pro Gly

1 1 5 10 10 15 15 10 15 14 14 15 16 19 Leu Gly Leu Ser Ala Cys Phe Cys Cys Ala Glu Gly Phe 20 25 30 Ser Arg Leu Asn Gln Gln Val Leu Ser Ser Ser Leu Leu Leu Leu Leu Ser 35 40 45 Arg Thr Asn Cys Pro Cys Lys Tyr Ser Phe Leu Asp Asn Leu Lys Lys So 50 55 60 Leu Thr Pro Arg Arg Asp Val Pro Thr Tyr Pro Lys Val Arg 65 70 78

<210> 869 <211> 119 <212>Amino acid <213> Homo sapiens

<400> 869 Arg Asp Asp Ala Cys Leu Tyr Ser Pro Ala Ser Ala Pro Glu Val Ile 1 5 1.0 Thr Val Gly Ala Thr Asn Ala Gln Asp Gln Pro Val Thr Leu Gly Thr 20 25 Leu Gly Thr Asn Phe Gly Arg Cys Val Asp Leu Phe Ala Pro Gly Glu 40 Asp Ile Ile Gly Ala Ser Ser Asp Cys Ser Thr Cys Phe Val Ser Gln 55 Ser Gly Thr Ser Gln Ala Ala Ala His Val Ala Gly Ile Ala Ala Met 70 75 Met Leu Ser Ala Glu Pro Glu Leu Thr Leu Ala Glu Leu Arg Gln Arg 85 90 Leu Ile His Phe Ser Ala Lys Asp Val Ile Asn Glu Ala Trp Phe Pro 105 100 Glu Asp Gln Arg Val Leu Thr 115

<210> 870 <211> 34 <212>Amino acid <213> Homo sapiens

<210> 871 <211> 154 <212>Amino acid <213> Homo sapiens

34

Glu Ala Gly Asp Ala Asp Glu Asp Glu Ala Asp Ala Asn Ser Ser Asp 10 Cys Glu Pro Glu Gly Pro Val Glu Ala Glu Glu Pro Pro Gln Glu Asp 20 25 Ser Ser Ser Gln Ser Asp Ser Val Glu Asp Arg Ser Glu Asp Glu Glu 40 Asp Glu His Ser Glu Glu Glu Glu Thr Ser Gly Ser Ser Ala Ser Glu 55 Glu Ser Glu Ser Glu Glu Ser Glu Asp Ala Gln Ser Gln Ser Gln Ala 70 75 Asp Glu Glu Glu Glu Asp Asp Phe Gly Val Glu Tyr Leu Leu Ala 85 90 Arg Asp Glu Glu Gln Ser Glu Ala Asp Ala Gly Ser Gly Pro Pro Thr 100 105 Pro Gly Pro Thr Thr Leu Gly Pro Lys Lys Glu Ile Thr Asp Ile Ala 120 Ala Ala Ala Glu Ser Leu Gln Pro Lys Gly Tyr Thr Leu Ala Thr Thr 130 135 Gln Val Lys Thr Pro Ile Pro Leu Leu Leu 150 154

<210> 872 <211> 118 <212>Amino acid <213> Homo sapiens

<400> 872 Leu Lys Asn Leu Arg Glu Leu Leu Leu Glu Asp Asn Gln Leu Pro Gln 1. 5 10 Ile Pro Ser Gly Leu Pro Glu Ser Leu Thr Glu Leu Ser Leu Ile Gln 20 25 Thr Asn Ile Tyr Asn Ile Thr Lys Glu Gly Ile Ser Arg Leu Ile Asn 40 45 Leu Lys Asn Leu Tyr Leu Ala Trp Asn Cys Tyr Phe Asn Lys Val Cys 55 Glu Lys Thr Asn Ile Glu Asp Gly Val Phe Glu Thr Leu Thr Asn Leu 70 75 Glu Leu Leu Ser Leu Ser Phe Asn Ser Leu Ser His Val Pro Pro Lvs 85 90 Leu Pro Ser Ser Leu Arg Lys Leu Phe Leu Ser Asn Thr Gln Ile Lys 100 105 Tyr Ile Ser Glu Glu Asp

115 118

<210> 873 <211> 42 <212>Amino acid <213> Homo sapiens

<400> 873 Met Arg Ser Gln Ala Leu Gly Gln Ser Ala Pro Ser Leu Thr Ala Ser

1 5 Leu Lys Glu Leu Ser Leu Pro Arg Arg Gly Ser Phe Pro Val Cys Pro 20 25 30 Asn Ala Gly Arg Thr Ser Pro Leu Gly \star 35 40 41

<210> 874 <211> 70 <212>Amino acid <213> Homo sapiens

<210> 875 <211> 41 <212>Amino acid <213> Homo sapiens

4400> 875 Gln Thr Pro Asp Lys Lys Gln Asn Asp Gln Arg Asn Arg Lys Arg Lys 1 10 15 Ala Glu Pro Tyr Glu Thr Ser Gln Gly Ser Asn Asn Phe Val Ser Thr 20 25 Lys Val Leu Asn Ser Asn Val Leu Arg 30 Lys Val Leu Asn Ser Asn Val Leu Arg 41

<210> 876 <211> 139 <212>Amino acid <213> Homo sapiens

 $^{\circ}$ 4400> 876 The The Ile Lys Gly Met Val Glu Leu Val Pro Ala Ser Asp Thr 1 $^{\circ}$ 15 Leu Arg Lys Ile Gln Val Glu Tyr Gly Val Thr Gly Ser Phe Lys Asp 20 $^{\circ}$ 25 $^{\circ}$ 30 Lys Pro Leu Ala Glu Trp Leu Arg Lys Tyr Asn Pro Ser Glu Glu Glu Tyr Glu Lys Ala Ser Glu Asn Phe Ile Tyr Ser Cys Ala Gly Cys Cys

50 55 60

Val Ala Thr Tyr Val Leu Gly Ile Cys Asp Arg His Asn Asp Asn Ile
65 70 75 80

Met Leu Arg Ser Thr Gly His Met Phe His Ile Asp Phe Gly Lys Phe
85 90

Leu Gly His Ala Gln Met Phe Gly Ser Phe Lys Arg Asp Arg Ala Pro
100 105 110

Phe Val Leu Thr Ser Asp Met Ala Tyr Val Ile Asn Gly Gly Glu Lys
115 120 125

Pro Thr Ile Arg Phe Gln Leu Phe Val Asp Leu
130 135

<210> 877 <211> 350 <212>Amino acid <213> Homo sapiens <220> <221> misc feature

<222> (1) ... (350) <223> X = any amino acid or stop code

<400> 877 Pro Ser Pro Leu Pro Ser Leu Ser Leu Pro Pro Pro Val Ala Pro Glv 10 Gly Gln Glu Ser Pro Ser Pro His Thr Ala Glu Val Glu Ser Glu Ala 20 25 Ser Pro Pro Pro Ala Arg Pro Leu Pro Gly Glu Ala Arg Leu Ala Pro 40 Ile Ser Glu Glu Gly Lys Pro Gln Leu Val Gly Arg Phe Gln Val Thr 60 55 Ser Ser Lys Asn Arg Leu Ser Leu Phe Pro Cys Ser Gln His Pro Pro 70 75 Leu Ser Leu Val Leu Gln Asn Leu Gln Pro Leu Ser Ser Leu Gln Arg 85 90 Ala Gln Ile Gln Arg Thr Val Pro Gly Gly Gly Pro Glu Thr Arg Glu 100 105 Ala Leu Ala Glu Ser Asp Arg Ala Ala Glu Gly Leu Gly Ala Gly Val 120 125 Glu Glu Glu Gly Asp Asp Gly Lys Glu Pro Gln Val Gly Gly Ser Pro 135 140 Gln Pro Leu Ser His Pro Ser Pro Val Trp Met Asn Tyr Ser Tyr Ser 150 155 Ser Leu Cys Leu Ser Ser Glu Glu Ser Glu Ser Ser Gly Glu Asp Glu 165 170 Glu Phe Trp Ala Glu Leu Gln Ser Leu Arg Gln Lys His Leu Ser Glu 185 Val Glu Thr Leu Gln Thr Leu Gln Lys Lys Glu Ile Glu Asp Leu Tyr 200 Ser Arg Leu Gly Lys Gln Pro Pro Pro Gly Ile Val Ala Pro Ala Ala 215 220 Met Leu Ser Ser Arg Gln Arg Arg Leu Ser Lys Gly Ser Phe Pro Thr 230 235 Ser Arg Arg Asn Ser Leu Gln Arg Ser Glu Pro Pro Gly Pro Gly Glu 245 250 Thr Ala Gly His Pro Ala Ser Ile Phe Ser Leu Arg Pro Leu Ser Val 260 265 Asp Cys Phe Ser Pro Gly Pro Gly Gly Leu Pro Arg Gly Asn Arg Pro 275 280

Pro Leu Pro Thr Ser Pro Phe Leu Thr Xaa Cys Ser Pro Ser Pro His 290 295 300 300

Thr Ala Glu Val Glu Ser Glu Ala Ser Pro Pro Pro Pro Ala Arg Pro Leu 305 310 315 320

Pro Gly Glu Ala Arg Leu Ala Pro Ile Ser Glu Glu Gly Lys Pro Gln 325

Leu Val Gly Arg Phe Pro Ser Asp Phe Ile Gln Gly Thr Gly 340 340 340 345

<210> 878 <211> 112 <212>Amino acid <213> Homo sapiens

<400> 878 Arg Arg Phe Val Ser Gln Glu Thr Gly Asn Leu Tyr Ile Ala Lys Val 1.0 Glu Lys Ser Asp Val Gly Asn Tyr Thr Cys Val Val Thr Asn Thr Val 20 25 Thr Asn His Lys Val Leu Gly Pro Pro Thr Pro Leu Ile Leu Arg Asn 35 40 Asp Gly Val Met Gly Glu Tyr Glu Pro Lys Ile Glu Val Gln Phe Pro 55 Glu Thr Val Pro Thr Ala Lys Gly Ala Thr Val Lys Leu Glu Cys Phe 70 75 Ala Leu Gly Asn Pro Val Pro Thr Ile Ile Trp Arg Arg Ala Asp Gly 85 90 Lys Pro Ile Ala Arg Lys Ala Arg Arg His Lys Ser Arg Val Gly Lys 100 105 110 112

<210> 879 <211> 282 <212>Amino acid <213> Homo sapiens

<400> 879 Met Leu Arg Thr Cys Tyr Val Leu Cys Ser Gln Ala Gly Pro Arg Ser 10 Arg Gly Trp Gln Ser Leu Ser Phe Asp Gly Gly Ala Phe His Leu Lys 20 25 Gly Thr Gly Glu Leu Thr Arg Ala Leu Leu Val Leu Arg Leu Cys Ala 40 Trp Pro Pro Leu Val Thr His Gly Leu Leu Leu Gln Ala Trp Ser Arg 55 Arg Leu Leu Gly Ser Arg Leu Ser Gly Ala Phe Leu Arg Ala Ser Val 75 Tyr Gly Gln Phe Val Ala Gly Glu Thr Ala Glu Glu Val Lys Gly Cys Val Gln Gln Leu Arg Thr Leu Ser Leu Arg Pro Leu Leu Ala Val Pro 105 Thr Glu Glu Glu Pro Asp Ser Ala Ala Lys Ser Gly Glu Ala Trp Tyr 120

Glu Gly Asn Leu Gly Ala Met Leu Arg Cys Val Asp Leu Ser Arg Gly 135 Leu Leu Glu Pro Pro Ser Leu Ala Glu Ala Ser Leu Met Gln Leu Lys 150 155 Val Thr Ala Leu Thr Ser Thr Arg Leu Cys Lys Glu Leu Ala Ser Trp 165 170 Val Arg Arg Pro Gly Ala Ser Leu Glu Leu Ser Pro Glu Arg Leu Ala 180 185 190 Glu Ala Met Asp Ser Gly Gln Asn Leu Gln Val Ser Cys Leu Asn Ala 200 205 Glu Gln Asn Gln His Leu Arg Ala Ser Leu Ser Arg Leu His Arg Val 215 220 Ala Gln Tyr Ala Arg Ala Gln His Val Arg Leu Leu Val Asp Ala Glu 230 235 Tyr Thr Ser Leu Asn Pro Ala Leu Ser Leu Leu Val Ala Ala Leu Ala 250 245 Val Arg Trp Asn Ser Pro Gly Glu Gly Gly Pro Trp Val Trp Asn Thr 260 265 Tyr Gln Ala Cys Leu Lys Asp Thr Phe * 280 281

<210> 880 <211> 29 <212>Amino acid <213> Homo sapiens

<400> 880 Pro His His Arg Ile Ala Gly Asp Thr Ala Ile Asp Lys Asm Ile His 10 Gln Ser Val Ser Glu Gln Ile Lys Lys Asn Phe Ala Lys 20

<210> 881 <211> 45 <212>Amino acid <213> Homo sapiens

<400> 881 Gln Met Thr Asn Pro Phe Phe Leu Cys Phe Thr Thr Met Ile Ser Asn 5 10 Cys Asn Phe Phe Lys Gly Pro Pro Gly Pro Pro Gly Glu Lys Gly Asp 25 Arg Gly Pro Thr Gly Glu Ser Gly Pro Arg Gly Phe Pro

<210> 882 <211> 54 <212>Amino acid <213> Homo sapiens

<210> 883 <211> 479 <212>Amino acid <213> Homo sapiens

<400> 883 Lys Leu Ser Val Asn His Arg Arg Thr His Leu Thr Lys Leu Met His 1 10 Thr Val Glu Gln Ala Thr Leu Arg Ile Ser Gln Ser Phe Gln Lys Thr 20 2.5 Thr Glu Phe Asp Thr Asn Ser Thr Asp Ile Ala Leu Lys Val Phe Phe 35 40 Phe Asp Ser Tyr Asn Met Lys His Ile His Pro His Met Asn Met Asp 55 Gly Asp Tyr Ile Asn Ile Phe Pro Lys Arg Lys Ala Ala Tyr Asp Ser 70 75 Asn Gly Asn Val Ala Val Ala Phe Leu Tyr Tyr Lys Ser Ile Gly Pro 90 Leu Leu Ser Ser Ser Asp Asn Phe Leu Leu Lys Pro Gln Asn Tyr Asp 105 Asn Ser Glu Glu Glu Glu Arg Val Ile Ser Ser Val Ile Ser Val Ser 120 Met Ser Ser Asn Pro Pro Thr Leu Tyr Glu Leu Glu Lys Ile Thr Phe 135 140 Thr Leu Ser His Arg Lys Val Thr Asp Arg Tyr Arg Ser Leu Cys Ala 150 155 Phe Trp Asn Tyr Ser Pro Asp Thr Met Asn Gly Ser Trp Ser Ser Glu 165 170 Gly Cys Glu Leu Thr Tyr Ser Asn Glu Thr His Thr Ser Cys Arg Cys 180 185 190 Asm His Leu Thr His Phe Ala Ile Leu Met Ser Ser Gly Pro Ser Ile 200 205 Gly Ile Lys Asp Tyr Asn Ile Leu Thr Arg Ile Thr Gln Leu Gly Ile 215 220 Ile Ile Ser Leu Ile Cys Leu Ala Ile Cys Ile Phe Thr Phe Trp Phe 230 235 240 Phe Ser Glu Ile Gln Ser Thr Arg Thr Thr Ile His Lys Asn Leu Cys 245 250 255 Cys Ser Leu Phe Leu Ala Glu Leu Val Phe Leu Val Gly Ile Asn Thr 260 265 Asn Thr Asn Lys Leu Phe Cys Ser Ile Ile Ala Gly Leu Leu His Tyr 280 Phe Phe Leu Ala Ala Phe Ala Trp Met Cys Ile Glu Gly Ile His Leu 295 300 Tyr Leu Ile Val Val Gly Val Ile Tyr Asn Lys Gly Phe Leu Hìs Lys 310 315 Asn Phe Tyr Ile Phe Gly Tyr Leu Ser Pro Ala Val Val Gly Phe 330

Ser Ala Ala Leu Gly Tyr Arg Tyr Tyr Gly Thr Thr Lys Val Cys Trp 340 345 Leu Ser Thr Glu Asn Asn Phe Ile Trp Ser Phe Ile Gly Pro Ala Cys 355 360 365 Leu Ile Ile Leu Val Asn Leu Leu Ala Phe Gly Val Ile Ile Tyr Lys 370 375 380 Val Phe Arg His Thr Ala Gly Leu Lys Pro Glu Val Ser Cys Phe Glu 390 395 Asn Ile Arg Ser Cys Ala Arg Gly Ala Leu Ala Leu Leu Phe Leu Leu 405 410 Gly Thr Thr Trp Ile Phe Gly Val Leu His Val Val His Ala Ser Val 420 425 Val Thr Ala Tyr Leu Phe Thr Val Ser Asn Ala Phe Gln Gly Met Phe 440 445 Ile Phe Leu Phe Leu Cys Val Leu Ser Arg Lys Ile Gln Glu Glu Tyr 455 460 Tyr Arg Leu Phe Lys Asn Val Pro Cys Cys Phe Gly Cys Leu Arg 470 475

<210> 884 <211> 143 <212>Amino acid <213> Homo sapiens

<400> 884 Gly Thr Arg Glu Ala Ala Pro Ser Arg Phe Met Phe Leu Leu Phe Leu 1 10 Leu Thr Cys Glu Leu Ala Ala Glu Val Ala Ala Glu Val Glu Lys Ser 25 Ser Asp Gly Pro Gly Ala Ala Gln Glu Pro Thr Trp Leu Thr Asp Val 35 40 Pro Ala Ala Met Glu Phe Ile Ala Ala Thr Glu Val Ala Val Ile Gly 55 60 Phe Phe Gln Asp Leu Glu Ile Pro Ala Val Pro Ile Leu His Ser Met 70 75 Val Gln Lys Phe Pro Gly Val Ser Phe Gly Ile Ser Thr Asp Ser Glu 90 Val Leu Thr His Tyr Asn Ile Thr Gly Asn Thr Ile Cys Leu Phe Arg 100 105 Leu Val Asp Asn Glu Gln Leu Asn Leu Glu Asp Glu Asp Ile Glu Ser 115 120 125 Ile Asp Ala Thr Lys Leu Ser Arg Phe Ile Glu Ile Asn Ser Leu 130

<210> 885 <211> 52 <212>Amino acid <213> Homo sapiens

 $^{\rm c400}$ 885 Sep Glu Thr Ser Gly Leu Ile Val Arg Glu Val Ser Ile Glu Ile Ser I $^{\rm 1}$ 5 $^{\rm 10}$ Clu Glu Glu Leu Phe Gly Pro Glu Asp Tyr Trp Cys Glu $^{\rm 20}$ 20 $^{\rm 25}$

<210> 887
<211> 177
<212-3mino acid
<2123- Homo sapiens
<220>
<221> misc_feature
<221> (1)...(177)
<223> X = any amino acid or stop code

<213> Homo sapiens

<400> 887 Xaa Cys Gly Glu Asp Gly Ser Phe Thr Gln Val Gln Cys His Thr Tyr 10 Thr Gly Tyr Cys Trp Cys Val Thr Pro Asp Gly Lys Pro Ile Ser Gly 20 25 Ser Ser Val Gln Asn Lys Thr Pro Val Cys Ser Gly Ser Val Thr Asp 35 40 Lys Pro Leu Ser Gln Gly Asn Ser Gly Arg Lys Asp Asp Gly Ser Lys 55 Pro Thr Pro Thr Met Glu Thr Gln Pro Val Phe Asp Gly Asp Glu Ile 70 75 Thr Ala Pro Thr Leu Trp Ile Lys His Leu Val Ile Lys Asp Ser Lys 85 90 Leu Asn Asn Thr Asn Ile Arg Asn Ser Glu Lys Val Tyr Ser Cys Asp 100 105 Gln Glu Arg Gln Ser Ala Leu Glu Glu Ala Gln Gln Asn Pro Arg Glu 115 120 125 Gly Ile Val Ile Pro Glu Cys Ala Pro Gly Gly Leu Tyr Lys Pro Val 135 Gln Cys His Gln Ser Thr Gly Tyr Cys Trp Cys Val Leu Val Asp Thr 150 155 Gly Arg Pro Leu Pro Gly Thr Ser Thr Arg Tyr Val Met Pro Ser Xaa 165 170

<210> 888 <211> 48 <212>Amino acid <213> Homo sapiens

400> 888
Val Leu Gln Leu IIe Lys Ser Gln Lys Phe Leu Asn Lys Leu Val IIe
1
1 10
15
16
10
15
10
10
15
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10</p

<210> 889 <211> 316 <212>Amino acid <213> Homo sapiens

<400> 889 Arg Arg Leu Ser Leu Leu Asp Leu Gln Leu Gly Pro Leu Gly Arg Asp 10 Pro Pro Gln Glu Cys Ser Thr Phe Ser Pro Thr Asp Ser Gly Glu Glu 25 Pro Gly Gln Leu Ser Pro Gly Val Gln Phe Gln Arg Arg Gln Asn Gln 40 Arg Arg Phe Ser Met Glu Asp Val Ser Lys Arg Leu Ser Leu Pro Met Asp Ile Arg Leu Pro Gln Glu Phe Leu Gln Lys Leu Gln Met Glu Ser 70 75 Pro Asp Leu Pro Lys Pro Leu Ser Arg Met Ser Arg Arg Ala Ser Leu 85 90 Ser Asp Ile Gly Phe Gly Lys Leu Glu Thr Tyr Val Lys Leu Asp Lys 100 105 110 Leu Gly Glu Gly Thr Tyr Ala Thr Val Phe Lys Gly Arg Ser Lys Leu 120 125 Thr Glu Asn Leu Val Ala Leu Lys Glu Ile Arg Leu Glu His Glu Glu 135 140 Gly Ala Pro Cys Thr Ala Ile Arg Glu Val Ser Leu Leu Lys Asn Leu 150 155 Lys His Ala Asn Ile Val Thr Leu His Asp Leu Ile His Thr Asp Arg 165 170 Ser Leu Thr Leu Val Phe Glu Tyr Leu Asp Ser Asp Leu Lys Gln Tyr 180 185 Leu Asp His Cys Gly Asn Leu Met Ser Met His Asn Val Lys Val Arg 200 Pro Arg Gly Gln Gly Pro Pro Ile Leu Ala Ala Thr Cys Pro Glu Ala 215 220 Gln Cys Gly Asp Pro Leu Ser Pro Pro Gly Ile Arg Leu Leu Arg Trp 235 Leu Lys Pro Ser His Val Gly Lys Arg Glu Arg Ala Met Pro Ser Thr 250 Ser Pro Gly Thr Gly Leu Ser Ala Leu Pro Gln Glu Gln Thr His Thr

260 265 270

Val Cys His Cys Leu Ala Val Gly Ile Lys Pro Thr Leu Asn Ser Glu
275 280 285

His Gln Phe Pro Ser Leu Ser Aen Gly Ser Val Ser Tyr Leu Pro Lys
290 295 300

Cys Arg Glu Ala Ser Gly Glu Ala Arg Gly Tyr Glu
305 310 315 316

<210> 890 <211> 34 <212>Amino acid <213> Homo sapiens

<210> 891 <211> 68 <212>Amino acid <213> Homo sapiens

<210> 892 <211> 38 <212>Amino acid <213> Homo sapiens

35 38

<210> 893 <211> 195 <212>Amino acid <213> Homo sapiens

<400> 893 His Thr His Lys Leu Val Ala Pro Arg Pro Gly Leu Pro Pro Thr Ser 1 5 7.0 Gln Trp Pro Arg Asp Ala Gly Arg Gln Ala Ser Gly Gly Leu Pro Ser 20 25 30 Leu Ser Thr Gly Pro Pro Lys Gly Pro Arg Asp Gly Leu Ala Arg Gly 40 His Pro Ala Glu Trp Leu Ala Gly Ser Pro Gly Asn Asn Ser Pro Thr 55 Gln Gly Ser Leu Pro Pro Gln Leu Asp Leu Tyr Ala Gly Ala Leu Phe 75 70 Val His Ile Cys Leu Gly Trp Asn Phe Tyr Leu Ser Thr Ile Leu Thr 85 90 Leu Gly Ile Thr Ala Leu Tyr Thr Ile Ala Gly Met Val Pro Ala Ala 105 Gly Arg Ser Thr Gln Gly Thr Cys Lys Gly Val Arg Arg Pro Pro Pro 120 125 Pro Thr Gly Pro Arg Glu Gln Pro Arg Lys Trp Pro Gln Gln Glu Pro 135 Gln Lys Phe Leu Pro Val Ser Leu Leu Pro Gly Ala Arg Ala Pro Ser 150 155 Ser Asn Leu Ala Ser Thr Gly Arg Gly Pro Gly Cys Cys Asn Leu His 170 Gly Arg Pro Ala Asp Ala His His Gly Gly Gly Cys His Pro Asp 185 Asn Gln Arg 195

<210> 894 <211> 87 <212>Amino acid <213> Homo sapiens

<210 895
<211 49
<2123Amaino acid
<213 Homo sapiens
<220
<221 mise_feature
<2221 (1)...(49)</pre>

 $^{<4}00 \times 895$ Val Cys Pro Lys Trp Cys Arg Phe Leu Thr Met Leu Gly His Cys Cys 1 10 15 Try Phe Trp His Val Trp Pro Ala Ser Xaa Ala Leu Ser Ala Gly Pro 20 25 30 Thr Pro Thr Ser Arg Ser Phe Ser Pro Ser Pro Leu Arg Ser Ile Ser Thr 2 35 40 45 45 47 45 49

<211- 128
<212-Amino acid
<213- Homo sapiens
<220<221- miso_feature
<222- (1)...(128)
<223- X = any amino acid or stop code</pre>

<210> 896

<400> 896 Met Arg Gly Pro Pro Val Leu Leu Gln Ala Ala Pro Met Glu Cys . 1 5 10 Pro Val Pro Gln Gly Ile Pro Ala Gly Ser Ser Pro Glu Pro Ala Pro 25 Asp Pro Pro Gly Pro His Phe Leu Arg Gln Glu Arg Ser Phe Glu Cys 40 Arg Met Cys Gly Lys Ala Phe Lys Arg Ser Ser Thr Leu Ser Thr His 55 Leu Leu Ile His Ser Asp Thr Arg Pro Tyr Pro Cys Gln Phe Cys Gly 70 75 Lys Arg Phe His Gln Lys Ser Asp Met Lys Lys His Thr Tyr Ile His 85 90 Thr Gly Glu Lys Pro His Lys Cys Gln Thr Gln Arg Glu Pro Thr Met 105 Val Leu Ser Pro Ala Asp Lys Thr Asn Val Lys Ala Ala Trp Kaa *

<210> 897 <211> 57 <212>Amino acid <213> Homo sapiens

- 400> 897

- 400> 897

- 400> 897

- 100

- 100

- 100

- 100

- 100

- 100

- 100

- 100

- 100

- 100

- 100

- 100

- 100

- 100

- 100

- 100

- 100

- 100

- 100

- 100

- 100

- 100

- 100

- 100

- 100

- 100

- 100

- 100

- 100

- 100

- 100

- 100

- 100

- 100

- 100

- 100

- 100

- 100

- 100

- 100

- 100

- 100

- 100

- 100

- 100

- 100

- 100

- 100

- 100

- 100

- 100

- 100

- 100

- 100

- 100

- 100

- 100

- 100

- 100

- 100

- 100

- 100

- 100

- 100

- 100

- 100

- 100

- 100

- 100

- 100

- 100

- 100

- 100

- 100

- 100

- 100

- 100

- 100

- 100

- 100

- 100

- 100

- 100

- 100

- 100

- 100

- 100

- 100

- 100

- 100

- 100

- 100

- 100

- 100

- 100

- 100

- 100

- 100

- 100

- 100

- 100

- 100

- 100

- 100

- 100

- 100

- 100

- 100

- 100

- 100

- 100

- 100

- 100

- 100

- 100

- 100

- 100

- 100

- 100

- 100

- 100

- 100

- 100

- 100

- 100

- 100

- 100

- 100

- 100

- 100

- 100

- 100

- 100

- 100

- 100

- 100

- 100

- 100

- 100

- 100

- 100

- 100

- 100

- 100

- 100

- 100

- 100

- 100

- 100

- 100

- 100

- 100

- 100

- 100

- 100

- 100

- 100

- 100

- 100

- 100

- 100

- 100

- 100

- 100

- 100

- 100

- 100

- 100

- 100

- 100

- 100

- 100

- 100

- 100

- 100

- 100

- 100

- 100

- 100

- 100

- 100

- 100

- 100

- 100

- 100

- 100

- 100

- 100

- 100

- 100

- 100

- 100

- 100

- 100

- 100

- 100

- 100

- 100

- 100

- 100

- 100

- 100

- 100

- 100

- 100

- 100

- 100

- 100

- 100

- 100

- 100

- 100

- 100

- 100

- 100

- 100

- 100

- 100

- 100

- 100

- 100

- 100

- 100

- 100

- 100

- 100

- 100

- 100

- 100

- 100

- 100

- 100

- 100

- 100

- 100

- 100

- 100

- 100

- 100

- 100

- 100

- 100

- 100

- 100

- 100

- 100

- 100

- 100

- 100

- 100

- 100

- 100

- 100

- 100

- 100

- 100

- 100

- 100

- 100

- 100

- 100

- 100

- 100

- 100

- 100

- 100

- 100

- 100

- 100

- 100

- 100

- 100

- 100

- 100

- 100

- 100

- 100

- 100

- 100

- 100

- 100

- 100

- 100

- 100

- 100

- 100

- 100

-

<210> 898 <211> 163 <212>Amino acid <213> Homo sapiens <220> <221> misc feature

<222> (1) ... (163) <223> X = any amino acid or stop code

<400> 898 Val Ser Val Phe Lys Asn Cys Pro Met Tyr Xaa Ile Cys Ile Phe Leu 1 10 Thr Lys Met Phe Cys Val Leu Ile Ile Xaa Asn Lys Phe Xaa Val His 25 30 Lys Lys Pro Leu Gln Glu Val Glu Ile Ala Ala Ile Thr His Gly Ala 40 Leu Gln Gly Leu Ala Tyr Leu His Ser His Thr Met Ile His Arg Asp 55 Ile Lys Ala Gly Asn Ile Leu Leu Thr Glu Pro Gly Gln Val Lys Leu 70 75 Ala Asp Phe Gly Ser Ala Ser Met Ala Ser Pro Ala Asn Ser Phe Val 85 90 Gly Thr Pro Tyr Trp Met Ala Pro Glu Val Ile Leu Ala Met Asp Glu 100 105 Gly Gln Tyr Asp Gly Lys Val Asp Val Trp Ser Leu Gly Ile Thr Cys 120 125 Ile Glu Leu Ala Glu Arg Lys Pro Pro Leu Phe Asn Met Asn Ala Met 140 135 Ser Ala Leu Tyr His Ile Ala Gln Asn Glu Ser Pro Thr Leu Gln Ser 150 155 Asn Glu Trp 163

<210> 899 <211> 352 <212>Amino acid <213> Homo sapiens

<400> 899

Arg His Ala Arg Pro Gly Gly Gly His Ser Asn Gln Arg Lys Met 5 10 Ser Leu Glu Glu Glu Glu Thr Gln Pro Gly Arg Leu Leu Gly Arg 20 25 Arg Asp Ala Val Pro Ala Phe Ile Glu Pro Asn Val Arg Phe Trp Ile 40 Thr Glu Arg Gln Ser Phe Ile Arg Arg Phe Leu Gln Trp Thr Glu Leu 55 Leu Asp Pro Thr Asn Val Phe Ile Ser Val Glu Ser Ile Glu Asn Ser 70 75 Arg Gln Leu Leu Cys Thr Asn Glu Asp Val Ser Ser Pro Ala Ser Ala 85 90 Asp Gln Arg Ile Gln Glu Ala Trp Lys Arg Ser Leu Ala Thr Val His 100 105 Pro Asp Ser Ser Asn Leu Ile Pro Lys Leu Phe Arg Pro Ala Ala Phe 120 125 Leu Pro Phe Met Ala Pro Thr Val Phe Leu Ser Met Thr Pro Leu Lys 135 Gly Ile Lys Ser Val Ile Leu Pro Gln Val Phe Leu Cys Ala Tyr Met 150 155 Ala Ala Phe Asn Ser Ile Asn Gly Asn Arg Ser Tyr Thr Cys Lys Pro 165 170 175 Leu Glu Arg Ser Leu Leu Met Ala Gly Ala Val Ala Ser Ser Thr Phe 180 185 Leu Gly Val Ile Pro Gln Phe Val Gln Met Lys Tyr Gly Leu Thr Gly 200 205 Pro Trp Ile Lys Arg Leu Leu Pro Val Ile Phe Leu Val Gln Ala Ser 215 220 Gly Met Asn Val Tyr Met Ser Arg Ser Leu Glu Ser Ile Lys Gly Ile 230 235 Ala Val Met Asp Lys Glu Gly Asn Val Leu Gly His Ser Arg Ile Ala 245 250 Gly Thr Lys Ala Val Arg Glu Thr Leu Ala Ser Arg Ile Val Leu Phe 265 Gly Thr Ser Ala Leu Ile Pro Glu Val Phe Thr Tyr Phe Phe Lys Arg 280 285 Thr Gln Tyr Phe Arg Lys Asn Pro Gly Ser Leu Trp Ile Leu Lys Leu 295 300 Ser Cys Thr Val Leu Ala Met Gly Leu Met Val Pro Phe Ser Phe Ser 310 315 Ile Phe Pro Gln Ile Gly Gln Ile Gln Tyr Cys Ser Leu Glu Glu Lys 325 330 Ile Gln Ser Pro Thr Glu Glu Thr Glu Ile Phe Tyr His Arg Gly Val 345

<210> 900

<211> 186 <212>Amino acid

<213> Homo sapiens

<400> 90

Lys Thr Gly Ser Gly Phe Met Trp Val Asp Asp Ile Gln Cys Pro Lys Thr His Ile Ser Ile Trp Gln Cys Leu Ser Ala Pro Trp Glu Arg Arg 70 75 Ile Ser Ser Pro Ala Glu Glu Thr Trp Ile Thr Cys Glu Asp Arg Ile 90 Arg Val Arg Gly Gly Asp Thr Glu Cys Ser Gly Arg Val Glu Ile Trp 1.05 His Ala Gly Ser Trp Gly Thr Val Cys Asp Asp Ser Trp Asp Leu Ala 120 Glu Ala Glu Val Val Cys Gln Gln Leu Gly Cys Gly Ser Ala Leu Ala 135 140 Ala Leu Arg Asp Ala Ser Phe Gly Gln Gly Thr Gly Thr Ile Trp Leu 150 155 Asp Asp Met Arg Cys Lys Gly Asn Glu Ser Phe Leu Trp Asp Cys His 170 Ala Lys Pro Trp Gly Gln Ser Asp Cys Gly 180 185 186

<210> 901 <211> 365 <212>Amino acid <213> Homo sapiens

<400> 901 Leu Gly Asp Phe Pro Gln Pro Gln Arg Gln Arg Arg Pro Gly Ala Ser 10 Asp Leu Pro Pro His Leu Ala Gly Ala Arg Gln Trp Glu Val Arg Phe 2.5 Phe Arg His Leu Pro Ala Arg Thr Leu Pro Pro Ser Leu Arg Met Pro 40 Glu Gly Pro Glu Leu His Leu Ala Ser Gln Phe Val Asn Glu Ala Cys 55 60 Arg Ala Leu Val Phe Gly Gly Cys Val Glu Lys Ser Ser Val Ser Arg 70 75 Asn Pro Glu Val Pro Phe Glu Ser Ser Ala Tyr Arg Ile Ser Ala Ser 85 90 Ala Arg Gly Lys Glu Leu Arg Leu Ile Leu Ser Pro Leu Pro Gly Ala 100 105 Gln Pro Gln Gln Glu Pro Leu Ala Leu Val Phe Arg Phe Gly Met Ser 120 Gly Ser Phe Gln Leu Val Pro Arg Glu Glu Leu Pro Arg His Ala His 135 140 Leu Arg Phe Tyr Thr Ala Pro Pro Gly Pro Arg Leu Ala Leu Cys Phe Val Asp Ile Arg Arg Phe Gly Arg Trp Asp Leu Gly Gly Lys Trp Gln 165 170 Pro Gly Arg Gly Pro Cys Val Leu Gln Glu Tyr Gln Gln Phe Arg Glu 185 Asn Val Leu Arg Asn Leu Ala Asp Lys Ala Phe Asp Arg Pro Ile Cys 200 Glu Ala Leu Leu Asp Gln Arg Phe Phe Asn Gly Ile Gly Asn Tyr Leu 215 220 Arg Ala Glu Ile Leu Tyr Arg Leu Lys Ile Pro Pro Phe Glu Lys Ala 230 235 Arg Ser Val Leu Glu Ala Leu Gln Gln His Arg Pro Ser Pro Glu Leu 245 250 Thr Leu Ser Gln Lys Ile Arg Thr Lys Leu Gln Asn Pro Asp Leu Leu 260 265 270

Glu Leu Cys His Ser Val Pro Lys Glu Val Val Gln Leu Gly Gly Arg 275 280
Gly Tyr Gly Ser Glu Ser Gly Glu Glu Asp Phe Ala Ala Phe Arg Ala 290 295 300
Trp Leu Arg Cys Tyr Gly Met Pro Gly Met Ser Ser Leu Gln Asp Arg 305 310 315 325
Gly Arg Thr Ile Trp Phe Gln Gly Asp Pro Gly Pro Leu Ala Pro Ala 225
Lys Gly Arg Lys Ser Arg Lys Lys Ser Lys Ala Thr Gln Leu Ser 340 340 345 350 350 350 355
Fro Glu Asp Arg Val Glu Asp Ala Leu Pro Pro Ser Lys 355 360 365

<210> 902 <211> 110 <212>Amino acid <213> Homo sapiens

<400> 902 Leu Thr Trp Ser Ala Cys Tyr Trp Arg Asp Ile Leu Arg Ile Gln Leu 10 Trp Ile Ala Ala Asp Ile Leu Leu Arg Met Leu Glu Lys Ala Leu Leu 25 Tyr Ser Glu His Gln Asn Ile Ser Asn Thr Gly Leu Ser Ser Gln Gly 40 Leu Leu Ile Phe Ala Glu Leu Ile Pro Ala Ile Lys Arg Thr Leu Ala 55 60 Arg Leu Leu Val Ile Ile Ala Ser Leu Asp Tyr Gly Ile Glu Lys Pro 70 75 His Leu Gly Thr Gly Met His Arg Val Ile Gly Leu Met Leu Leu Tyr 85 90 Leu Ile Phe Ala Asn Ala Glu Ser Val Ile Arg Val Ile Gly 105

<210> 903 <211> 44 <212>Amino acid <213> Homo sapiens

<210> 904 <211> 190 <212>Amino acid

<213> Homo sapiens

<400> 904 Tyr Glu Cys Glu Glu Leu Ala Lys Lys Leu Glu Asn Ser Gln Arg Asp 10 Gly Ile Ser Arg Asn Lys Leu Ala Leu Ala Glu Leu Tyr Glu Asp Glu 25 Val Lys Cys Lys Ser Ser Lys Ser Asn Arg Pro Lys Ala Thr Val Phe 35 40 Lys Ser Pro Arg Thr Pro Pro Gln Arg Phe Tyr Ser Ser Glu His Glu 55 Tyr Ser Gly Leu Asn Ile Val Arg Pro Ser Thr Gly Lys Ile Val Asn 70 75 Glu Leu Phe Lys Glu Ala Arg Glu His Gly Ala Val Pro Leu Asn Glu 90 Ala Thr Arg Ala Ser Gly Asp Asp Lys Ser Lys Ser Phe Thr Gly Gly 105 Gly Tyr Arg Leu Gly Ser Ser Phe Cys Lys Arg Ser Glu Tyr Ile Tyr 120 Gly Glu Asn Gln Leu Gln Asp Val Gln Ile Leu Leu Lys Leu Trp Ser 135 Asn Gly Phe Ser Leu Asp Asp Gly Glu Leu Arg Pro Tyr Asn Glu Pro 155 150 Thr Asn Ala Gln Phe Leu Glu Ser Val Lys Arg Gly Val Thr Leu Ile 170 Ala Cys Met Pro Glu Ile Gln Gln Leu Met Leu Glu Ile Phe

<210> 905 <211> 414 <212>Amino acid <213> Homo sapiens

<400> 905 Trp Pro Cys Gly Ala Ala Pro Gly Leu Thr His Ala Ser Glu Arg Met 5 10 Phe Thr Leu Thr Thr Met Ile Gln Ala Leu Ala Pro Val Met Gly Trp 25 Asp Arg Lys Pro Leu Lys Met Phe Ser Ser Glu Glu Met Arg Gly His 40 Leu His His His Lys Cys Leu Thr Lys Ile Leu Lys Val Glu Gly 55 Gln Val Pro Asp Leu Pro Ser Cys Leu Pro Leu Thr Asp Asn Thr Arg 70 75 Met Leu Ala Ser Ile Leu Ile Asn Met Leu Tyr Asp Asp Leu Arg Cys 90 Asp Pro Glu Arg Asp His Phe Arg Lys Ile Cys Glu Glu Tyr Ile Thr 105 Gly Lys Phe Asp Pro Gln Asp Met Asp Lys Asn Leu Asn Ala Ile Gln 120 Thr Val Ser Gly Ile Leu Gln Gly Pro Phe Asp Leu Gly Asn Gln Leu 135 Leu Gly Leu Lys Gly Val Met Glu Met Met Val Ala Leu Cys Gly Ser 150 155 Glu Arg Glu Thr Asp Gln Leu Val Ala Val Glu Ala Leu Ile His Ala 170 Ser Thr Lys Leu Ser Arg Ala Thr Phe Ile Ile Thr Asn Gly Val Ser 180 185 190

Leu Leu Lys Gln Ile Tyr Lys Thr Thr Lys Asn Glu Lys Ile Lys Ile 200 Arg Thr Leu Val Gly Leu Cys Lys Leu Gly Ser Ala Gly Gly Thr Asp 215 220 Tyr Gly Leu Arg Gln Phe Ala Glu Gly Ser Thr Glu Lys Leu Ala Lys 230 235 Gln Cys Arg Lys Trp Leu Cys Asn Met Ser Ile Asp Thr Arg Thr Arg 250 Arg Trp Ala Val Glu Gly Leu Ala Tyr Leu Thr Leu Asp Ala Asp Val 265 Lys Asp Asp Phe Val Gln Asp Val Pro Ala Leu Gln Ala Met Phe Glu 280 Leu Ala Lys Thr Ser Asp Lys Thr Ile Leu Tyr Ser Val Ala Thr Thr 295 300 Leu Val Asn Cys Thr Asn Ser Tyr Asp Val Lys Glu Val Ile Pro Glu 310 315 Leu Val Glm Leu Ala Lys Phe Ser Lys Gln His Val Pro Glu Glu His 325 330 Pro Lys Asp Lys Lys Asp Phe Ile Asp Met Arg Val Lys Arg Leu Leu 345 Lys Ala Gly Val Ile Ser Ala Leu Ala Cys Met Val Lys Ala Asp Ser 355 360 365 Ala Ile Leu Thr Asp Gln Thr Lys Glu Leu Leu Ala Arg Val Phe Leu 370 375 380 Ala Leu Cys Asp Asn Pro Lys Asp Arg Gly Thr Ile Val Ala Gln Gly 390 395 Gly Gly Lys Ala Leu Ile Pro Leu Ala Leu Glu Gly Thr Asp

<210> 906 <211> 296 <212>Amino acid <213> Homo sapiens

<400> 906 Val Asp Ser Val Gly Gly Ser Glu Ser Arg Ser Leu Asp Ser Pro 10 Thr Ser Ser Pro Gly Ala Gly Thr Arg Gln Leu Val Lys Ala Ser Ser 25 Thr Gly Thr Glu Ser Ser Asp Asp Phe Glu Glu Arg Asp Pro Asp Leu 40 Gly Asp Gly Leu Glu Asn Gly Leu Gly Ser Pro Phe Gly Lys Trp Thr 55 Leu. Ser Ser Ala Ala Gln Thr His Gln Leu Arg Arg Leu Arg Gly Pro 70 75 Ala Lys Cys Arg Glu Cys Glu Ala Phe Met Val Ser Gly Thr Glu Cys 85 90 Glu Glu Cys Phe Leu Thr Cys His Lys Arg Cys Leu Glu Thr Leu Leu 105 Ile Leu Cys Gly His Arg Arg Leu Pro Ala Arg Thr Pro Leu Phe Gly 120 Val Asp Phe Leu Gln Leu Pro Arg Asp Phe Pro Glu Glu Val Pro Phe 135 140 Val Val Thr Lys Cys Thr Ala Glu Ile Glu His Arg Ala Leu Asp Val 150 155 Gln Gly Ile Tyr Arg Val Ser Gly Ser Arg Val Arg Val Glu Arg Leu 170 175 165 Cys Gln Ala Phe Glu Asn Gly Arg Ala Leu Val Glu Leu Ser Gly Asn 180 185

Ser Pro His Asp Val Ser Ser Val Leu Lys Arg Phe Leu Gln Glu Leu 200 Thr Glu Pro Val Ile Pro Phe His Leu Tyr Asp Ala Phe Ile Ser Leu 215 220 Ala Lys Thr Leu His Ala Asp Pro Gly Asp Asp Pro Gly Thr Pro Ser 235 230 Pro Ser Pro Glu Val Ile Arg Ser Leu Lys Thr Leu Leu Val Gln Leu 245 250 Pro Asp Ser Asn Tvr Asn Thr Leu Arq His Leu Val Ala His Leu Phe 265 Arq Val Ala Ala Arg Phe Met Glu Asn Lys Met Ser Ala Asn Asn Leu 280 Gly Ile Val Phe Gly Pro Thr Leu 295 296

<210> 907 <211> 131 <212>Amino acid <213> Homo sapiens

<400> 907 Gly Leu His Val Ile Ser Leu His Ser Ala Asp Gly Arg His Trp Glu 5 10 Asp Pro Leu Ser Glu Leu Asp Ser Glu Arg Val Ser Ala Phe Leu Val 25 Thr Glu Thr Leu Val Phe Tyr Leu Phe Cys Leu Leu Ala Asp Glu Thr 45 Val Val Pro Pro Asp Val Pro Ser Tyr Leu Ser Ser Gln Gly Thr Leu 55 Ser Asp Arg Gln Glu Thr Val Val Arg Thr Glu Gly Gly Pro Gln Ala 70 75 Asn Gly His Ile Glu Ser Asn Gly Lys Ala Ser Val Thr Val Lys Gln 90 Ser Ser Ala Val Thr Val Ser Leu Gly Ala Gly Gly Gly Leu Gln Val 105 Phe Thr Gly Gln Val Pro Gly Ile Arg Trp Gly Lys Leu Gly Glu Ala 115 120 His Ala Ser

<210> 908 <211> 124 <212>Amino acid <213> Homo sapiens

130 131

400> 908
Lys Ile Lys His Arg Pro Glu Glu Glu Pro Arg Trp Ala Ala Ala Gly
1 10 15
Ala Gln Ser Ala Gly Pro Gly Ala Ala Glu Val Ala Pro Pro Arg Pro Arg Pro 20 25 30
Gly Thr Val Ala Pro Gly Ala Asn Gly Met Thr Asp Ser Ala Thr Ala 35 Asn Gly Asp Asp Arg Asp Pro Glu Ile Glu Leu Phe Val Lys Ala Gly
50 60

Ile Asp Gly Glu Ser Ile Gly Asn Cys Pro Phe Ser Gln Arg Leu Phe 65 70 75 80 Met Ile Leu Trp Leu Lys Gly Val Val Phe Asn Val Thr Thr Val Asp 95 90 95 95 96 96 95 Leu Lys Arg Lys Pro Ala Asp Leu Arg Asn Leu Ala Pro Gly Thr His 100 105 110 110 Pro Pro Phe Leu Ala Phe Asn Trp Tyr Val Lys Thr 111 115 120 124

<210> 909 <211> 111 <212>Amino acid <213> Homo sapiens

<400> 909 Leu Gly Phe Ser Asp Gly Gln Glu Ala Arg Pro Glu Glu Ile Gly Trp Leu Asn Gly Tyr Asn Glu Thr Thr Gly Glu Arg Gly Asp Phe Pro Gly 20 25 Thr Tyr Val Glu Tyr Ile Gly Arg Lys Lys Ile Ser Pro Pro Thr Pro 40 Lys Pro Arg Pro Pro Arg Pro Leu Pro Val Ala Pro Gly Ser Ser Lys 55 Thr Glu Ala Asp Val Glu Gln Gln Val Leu Tyr Lys Tyr Arg Lys Lys 70 75 Pro Ser Ser His Arg Pro Gln Thr Pro His Asn Gly Lys Ser Lys 90 Asn Phe Leu His Lys Gln Gly Leu Lys Lys Lys Lys Ala Ser Leu 105

<210> 910 <211> 298 <212>Amino acid <213> Homo sapiens

<400> 910 Arg Thr Arg Gly Val Met Glu Leu Ala Leu Arg Arg Ser Pro Val Pro Arg Trp Leu Leu Leu Pro Leu Leu Cly Leu Asn Ala Gly Ala 25 Val Ile Asp Trp Pro Thr Glu Glu Gly Lys Glu Val Trp Asp Tyr Val Thr Val Arg Lys Asp Ala Tyr Met Phe Trp Trp Leu Tyr Tyr Ala Thr 55 Asn Ser Cys Lys Asn Phe Ser Glu Leu Pro Leu Val Met Trp Leu Gln Gly Gly Pro Gly Gly Ser Ser Thr Gly Phe Gly Asn Phe Glu Glu Ile 90 Gly Pro Leu Asp Ser Asp Leu Lys Pro Arg Lys Thr Thr Trp Leu Gln 100 105 Ala Ala Ser Leu Leu Phe Val Asp Asn Pro Val Gly Thr Gly Phe Ser 120 Tyr Val Asn Gly Ser Gly Ala Tyr Ala Lys Asp Leu Ala Met Val Ala